

Wed 31 May 2006  
Eff. Date 05/31/06

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal

TIME 09:22:11

TITLE PAGE 1

C43 West Storage Reservoir  
South Florida Water Management  
District

DRAFT

Designed By: Stanley Consultants  
Estimated By: Stanley Consultants

Prepared By: L.G. Jensen  
D.R. Drake

Preparation Date: 05/31/06  
Effective Date of Pricing: 05/31/06  
Est Construction Time: 1095 Days

Sales Tax: 7.00%

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LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Bid Item \*\*

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SUMMARY PAGE 1

	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
01 Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08 Crested Spillway	1.00	EA	688,640	117,012	196,413	982,065	982065.30
09 Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10 Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

LABOR ID: C43RES EQUIP ID: C43RES

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CREW ID: NATO1A UPB ID: UP01EA



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\*\* PROJECT OWNER SUMMARY - Feature \*\*

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SUMMARY PAGE 2

	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
01 Demolition							
01.01 Demo Large Pump Station	1.00	EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00	EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam							
02.01 Clear and Grub	10365	AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000	CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852	CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670	LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438	CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chimney Drain	130250	CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936	SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659	CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.09 Toe Drain Outfall End Treatment	174.00	TON	9,393	1,644	2,759	13,796	79.29
02.15 Select Fill	41000	CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00	AC	425,976	125,130	125,130	625,652	2673.73
02.21 Sodding	250.00	AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations							
04.01 Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate S1	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure							
06.01 Gate S12	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980

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SUMMARY PAGE 3

	QUANTITY	UOM	CONTRACT	ESCALATED	CONTINGENT	TOTAL COST	UNIT COST
07 Perimeter Canal Structures							
07.01 Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358
TOTAL Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08 Crested Spillway							
08.01 Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
09.02 Gate S9	1.00	EA	837,412	146,547	245,990	1,229,948	1229948
09.03 Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
09.04 Gate S15	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
09.05 Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18	1.00	EA	1,028,163	179,829	302,023	1,510,115	1510115
09.08 Gate S19	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
TOTAL Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10 Sitework							
10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical							
11.01 Power Line Relocation	1.00	JB	815,000	142,625	239,406	1,197,031	1197031
TOTAL Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

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South Florida Water Management District  
C43 West Storage Reservoir

Variance Report

	BODR Estimate for Alternative A, Option 1	(30%) Estimate	Variance	Comments
Demolition		\$42,792.00	\$42,792.00	Demolition not broken out in BODR
Earthwork	\$135,600,000.00	\$157,587,087.00	\$21,987,087.00	Slurry Wall not in BODR, Dam 7' higher, sod added
Recreation Areas		\$23,772.00	\$23,772.00	Recreation not included in BODR
Pump Stations	\$26,300,000.00	\$45,874,603.00	\$19,574,603.00	Added PS4, dewatering cost higher and structure larger
Control Structures	\$6,200,000.00	\$20,277,604.00	\$14,077,604.00	There are 16 control structures and culverts
Sitework		\$2,986,465.00	\$2,986,465.00	Sitework not broken out in BODR
Site Electrical		\$815,000.00	\$815,000.00	Site Electrical not broken out in BODR
Subtotal	\$168,100,000.00	\$227,607,323.00	\$59,507,323.00	
Markup	\$84,050,000.00	\$106,690,860.00	\$22,640,860.00	Markup @ BODR was 50% Vs 46.9% at 30%
Total	\$252,150,000.00	\$334,298,183.00	\$82,148,183.00	

Main Outlet Structures	\$4,945,778.00
Balancing Structures	\$1,777,689.00
Perimeter Canal Structures	\$5,569,566.00
Crest Spillways	\$668,640.00
Gated Culverts	\$7,315,931.00
Total	\$20,277,604.00

Notes:

1. Control Structures in Preliminary Estimate includes two Main Outlet Structures, Balancing Structure, three Perimeter Canal Structures, two Crest Spillways and eight Gated Culverts.
2. Site work includes \$2.5 M access road.

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SUMMARY PAGE 4

	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
01 Demolition							
01.01 Demo Large Pump Station	1.00	EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00	EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam							
02.01 Clear and Grub	10365	AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000	CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852	CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670	LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438	CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chamney Drain	130250	CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936	SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659	CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.09 Toe Drain Outfall End Treatment	174.00	TON	9,393	1,644	2,759	13,796	79.29
02.15 Select Fill	41000	CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00	AC	425,976	74,546	125,130	625,652	2673.73
02.21 Sodding	250.00	AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls							
02.95.95 Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Cell Instruments & Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations							
04.01 Pump Station 1 - C43P1							
04.01.01 Pump Station 1							
04.01.02 Equipment	16,744	484	16,744,484	2,930,285	4,918,692	24,593,461	
04.01.03 Trash Handling System Bridge	18,179	209	18,179,209	3,181,362	5,340,143	26,700,714	
04.01.04 Siphon Break Structure	181	856	181,856	31,825	53,420	267,102	
04.01.05 Saxophone Discharge	906	630	906,630	158,660	266,322	1,331,612	
04.01.06 Equipment Building	1,104	487	1,104,487	193,285	324,443	1,622,216	
04.01.07 Sheet Pile Retaining Wall	29	324	29,324	5,132	8,614	43,070	
04.01.08 Earthwork Final Grading	3,099	209	3,099,209	542,362	910,393	4,551,964	
04.01.09 Pavement	23,843		23,843	4,173	7,004	35,019	
04.01.10 Concrete Paved Ditch	92167	SF	219,162	38,353	64,379	321,894	
04.01.11 Channel Excavation	85.00	CY	8,524	1,492	2,504	12,519	
04.01.12 Septic Tank & Drain Field	240430	CY	192,923	33,761	56,671	283,355	
	1.00	EA	16,992	2,974	4,991	24,957	

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SUMMARY PAGE 5

	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
04.01.13 Storm Sewer Piping	1.00	EA	19,797	3,465	5,815	29,077	29077.20
TOTAL Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4							
04.02.01 Pump Station 4 - C43P4			719,977	125,996	211,493	1,057,466	
04.02.02 Equipment			2,024,227	354,240	594,617	2,973,083	
04.02.04 Intake Structure			989,029	173,080	290,527	1,452,636	
04.02.05 Pump House/ Discharge Structure			349,510	61,164	102,669	513,343	
04.02.06 Retaining Walls			89,002	15,575	26,144	130,722	
04.02.10 Sitework			976,418	170,873	286,823	1,434,113	
TOTAL Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate S1							
05.01.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.01.03 Concrete	1.00	EA	677,568	118,574	199,035	995,177	995177.44
05.01.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.01.05 Gates	1.00	EA	935,653	163,739	274,848	1,374,241	1374241
05.01.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.01.90 Miscellaneous	1.00	EA	92,477	16,183	27,165	135,825	135825.38
05.01.95 Controls	1.00	EA	60,910	10,659	17,892	89,461	89460.90
TOTAL Gate S1	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8							
05.04.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.04.03 Concrete	1.00	EA	651,469	114,007	191,369	956,845	956845.00
05.04.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.04.05 Gates	1.00	EA	935,437	163,701	274,784	1,373,922	1373922
05.04.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.04.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.04.90 Miscellaneous	1.00	EA	90,750	15,881	26,658	133,289	133289.01
05.04.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112

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SUMMARY PAGE 6

	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
06 Balancing Structure							
06.01 Gate S12							
06.01.03 Concrete	1.00	EA	726,292	127,101	213,348	1,066,742	1066742
06.01.05 Gates	1.00	EA	262,328	45,907	77,059	385,294	385294.22
06.01.11 Electrical	1.00	EA	444,201	77,735	130,484	652,421	652420.32
06.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
06.01.90 Miscellaneous	1.00	EA	82,655	14,465	24,280	121,400	121399.97
06.01.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S12	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures							
07.01 Gate S3							
07.01.01 Excavation	1.00	JB	2,762	483	811	4,057	4057.00
07.01.02 Sheet Piling	1.00	EA	135,881	23,779	39,915	199,575	199575.21
07.01.03 Concrete	1.00	EA	361,222	63,214	106,109	530,544	530544.14
07.01.04 Erosion Control System	1.00	JB	19,509	3,414	5,731	28,653	28653.36
07.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
07.01.06 Rip Rap	1.00	EA	17,762	3,108	5,217	26,087	26087.43
07.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
07.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.01.95 Controls	1.00	EA	386,585	67,652	113,559	567,796	567796.23
TOTAL Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10							
07.02.01 Excavation	1.00	JB	4,505	788	1,323	6,616	6616.12
07.02.02 Sheet Piling	1.00	EA	212,839	37,247	62,521	312,607	312606.58
07.02.03 Concrete	1.00	EA	501,442	87,752	147,299	736,493	736493.50
07.02.04 Erosion Control System	1.00	JB	23,413	4,097	6,877	34,387	34387.39
07.02.05 Gates	1.00	EA	352,498	61,687	103,546	517,731	517731.33
07.02.06 Rip Rap	1.00	EA	27,858	4,875	8,183	40,917	40916.66
07.02.11 Electrical	1.00	EA	374,950	65,616	110,142	550,708	550707.83
07.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.02.95 Controls	1.00	EA	136,230	23,840	40,018	200,088	200087.62
TOTAL Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11							
07.03.01 Excavation	1.00	JB	6,679	1,169	1,962	9,810	9809.57

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07.03.02 Sheet Piling	1.00	EA	450,150	78,776	132,231	661,157	661157.32
07.03.03 Concrete	1.00	EA	837,322	146,531	245,963	1,229,817	1229817.00
07.03.04 Erosion Control System	1.00	JB	30,486	5,335	8,955	44,777	44776.61
07.03.05 Gates	1.00	EA	518,168	90,679	152,212	761,060	761060.98
07.03.06 Rip Rap	1.00	EA	44,804	7,841	13,161	65,805	65805.16
07.03.11 Electrical	1.00	EA	384,236	67,241	112,869	564,347	564347.22
07.03.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.03.95 Controls	1.00	EA	28,054	4,910	8,241	41,205	41204.82
TOTAL Gate S11	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358.00
TOTAL Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300.00
08 Crested Spillway							
08.01 Gate CS1 Crest Spillway							
08.01.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.01.03 Concrete	1.00	EA	322,166	56,379	94,636	473,180	473179.88
08.01.06 Rip Rap	1.00	EA	50,976	8,921	14,974	74,871	74870.69
08.01.90 Miscellaneous	1.00	EA	11,479	2,009	3,372	16,859	16859.12
TOTAL Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway							
08.02.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.02.03 Concrete	1.00	EA	219,553	38,422	64,494	322,468	322468.33
08.02.06 Rip Rap	1.00	EA	39,172	6,855	11,507	57,534	57533.99
08.02.90 Miscellaneous	1.00	EA	10,161	1,778	2,985	14,923	14923.49
TOTAL Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7							
09.01.03 Concrete	1.00	EA	248,569	43,500	73,017	365,086	365086.10
09.01.04 Erosion Control System	1.00	JB	107,119	18,746	31,466	157,331	157331.28
09.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
09.01.06 Stop Logs	1.00	EA	76,109	13,319	22,357	111,785	111785.15
09.01.07 Rip Rap	1.00	EA	46,811	8,192	13,751	68,754	68753.80
09.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.01.95 Controls	1.00	EA	257,693	45,096	75,697	378,486	378486.42

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TOTAL Gate S7:							
09.02 Gate S9	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
09.02.03 Concrete	1.00	EA	91,974	16,095	27,017	135,086	135086.43
09.02.04 Erosion Control System	1.00	JB	27,310	4,779	8,022	40,111	40111.27
09.02.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.02.06 Stop Logs	1.00	EA	30,987	5,423	9,103	45,513	45512.53
09.02.07 Rip Rap	1.00	EA	24,827	4,345	7,293	36,464	36464.40
09.02.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.02.95 Controls	1.00	EA	181,530	31,768	53,324	266,622	266621.53
TOTAL Gate S9	1.00	EA	837,412	146,547	245,990	1,229,948	1229948
TOTAL Gate S14							
09.03 Gate S14	1.00	EA	77,013	13,477	22,623	113,113	113112.72
09.03.03 Concrete	1.00	JB	12,603	2,205	3,702	18,510	18510.10
09.03.04 Erosion Control System	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.03.05 Gates	1.00	EA	38,055	6,660	11,179	55,893	55892.58
09.03.06 Stop Logs	1.00	EA	28,942	5,065	8,502	42,509	42509.21
09.03.07 Rip Rap	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.03.11 Electrical	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.03.15 Equipment Building	1.00	EA	351,432	61,501	103,233	516,166	516166.28
09.03.95 Controls	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
TOTAL Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
TOTAL Gate S15							
09.04 Gate S15	1.00	EA	109,014	19,077	32,023	160,114	160113.61
09.04.03 Concrete	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.04.04 Erosion Control System	1.00	EA	143,081	25,039	42,030	210,150	210150.34
09.04.05 Gates	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.04.06 Stop Logs	1.00	EA	69,926	12,237	20,541	102,704	102704.46
09.04.07 Rip Rap	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.04.11 Electrical	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.04.15 Equipment Building	1.00	EA	386,585	67,652	113,559	567,796	567796.23
09.04.95 Controls	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
TOTAL Gate S15	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
TOTAL Gate S16							
09.05 Gate S16	1.00	EA	46,224	8,089	13,578	67,892	67891.96
09.05.03 Concrete	1.00	JB	9,327	1,632	2,740	13,700	13699.55
09.05.04 Erosion Control System	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.05.06 Stop Logs	1.00	EA	70,129	12,273	20,600	103,002	103002.03

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09.05.07 Rip Rap	1.00	EA	20,711	3,624	6,084	30,420	30419.59
TOTAL Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17							
09.06.03 Concrete	1.00	EA	67,505	11,813	19,830	99,148	99148.27
09.06.04 Erosion Control System	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.06.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.06.06 Stop Logs	1.00	EA	35,065	6,136	10,300	51,501	51501.02
09.06.07 Rip Rap	1.00	EA	17,430	3,050	5,120	25,601	25600.87
09.06.11 Electrical	1.00	EA	59,406	10,396	17,451	87,253	87253.19
09.06.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.06.95 Controls	1.00	EA	410,020	71,753	120,443	602,216	602216.20
TOTAL Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18							
09.07.03 Concrete	1.00	EA	69,905	12,233	20,535	102,673	102673.05
09.07.04 Erosion Control System	1.00	JB	15,403	2,696	4,525	22,623	22623.09
09.07.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.07.06 Stop Logs	1.00	EA	36,424	6,374	10,699	53,497	53497.18
09.07.07 Rip Rap	1.00	EA	17,188	3,008	5,049	25,245	25244.58
09.07.11 Electrical	1.00	EA	356,774	62,435	104,802	524,011	524011.37
09.07.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.07.95 Controls	1.00	EA	408,449	71,479	119,982	599,910	599910.18
TOTAL Gate S18	1.00	EA	1,028,163	179,929	302,023	1,510,115	1510115
09.08 Gate S19							
09.08.03 Concrete	1.00	EA	54,274	9,498	15,943	79,714	79714.32
09.08.04 Erosion Control System	1.00	JB	12,600	2,205	3,701	18,507	18506.74
09.08.05 Gates	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.08.06 Stop Logs	1.00	EA	27,725	4,852	8,144	40,722	40721.73
09.08.07 Rip Rap	1.00	EA	18,363	3,214	5,394	26,971	26970.71
09.08.11 Electrical	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.08.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.08.95 Controls	1.00	EA	431,884	75,580	126,866	634,330	634330.14
TOTAL Gate S19	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
TOTAL Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10 Sitework							

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10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road							
10.20.01 Toe Road/Access Road Shell Rock	1.00	EA	1,899,512	332,415	557,982	2,789,908	2789908
10.20.02 Asphalt Paving	1.00	EA	636,853	111,449	187,076	935,378	935377.90
TOTAL Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical							
11.01 Power Line Relocation	1.00	JB	815,000	142,625	239,406	1,197,031	1197031
TOTAL Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

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	QUANTY UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
01 Demolition						
01.01 Demo Large Pump Station	1.00 EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00 EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00 EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam						
02.01 Clear and Grub	10365 AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000 CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852 CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670 LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438 CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chimney Drain	130250 CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936 SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659 CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.09 Toe Drain Outfall End Treatment	174.00 TON	9,393	1,644	2,759	13,796	79.29
02.15 Select Fill	41000 CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00 AC	425,976	74,546	125,130	625,652	2673.73
02.21 Sodding	250.00 AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls						
02.95.95 Controls	1.00 EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Cell Instruments & Controls	1.00 EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00 EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00 EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations						
04.01 Pump Station 1 - C43Pl						
04.01.01 Pump Station 1						
04.01.01.01 Substructure						
04.01.01.01.01 Standard Foundations						
04.01.01.01.01.01 Wall Foundations	1.00 LF	985,232	172,416	289,412	1,447,059	1447059
TOTAL Standard Foundations	1.00 SF	985,232	172,416	289,412	1,447,059	1447059
04.01.01.01.02 Special Foundation Conditions						

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGEN	TOTAL COST	UNIT COST
04.01.01.01.02.04 Dewatering	1.00	SF	3,425,211	599,412	1,006,156	5,030,779	5030779
TOTAL Special Foundation Conditions	1.00	SF	3,425,211	599,412	1,006,156	5,030,779	5030779
04.01.01.01.04 Foundation Excavation							
04.01.01.01.04.01 Excavation for Basements	1.00	CY	85,909	15,034	25,236	126,178	126178.41
TOTAL Foundation Excavation	1.00	CY	85,909	15,034	25,236	126,178	126178.41
TOTAL Substructure	1.00	SF	4,496,352	786,862	1,320,803	6,604,017	6604017
04.01.01.02 Superstructure							
04.01.01.02.01 Floor Construction							
04.01.01.02.01.03 Floor Decks and Slabs	1.00	SF	25,687	4,495	7,545	37,727	37727.19
04.01.01.02.01.50 Intake Zone	1.00	CY	463,324	81,082	136,101	680,507	680506.67
04.01.01.02.01.51 Intake Bays EL -16 to EL -6	1.00	CY	192,878	33,754	56,658	283,289	283289.04
04.01.01.02.01.52 Intake Bays EL -6 to EL -3.5	1.00	CY	152,870	26,752	44,906	224,528	224528.13
04.01.01.02.01.53 Pipe Gallery EL 10 to EL 22	1.00	CY	514,892	90,106	151,249	756,247	756247.04
04.01.01.02.01.54 Intake Bays EL -3.5 to EL 7	1.00	CY	312,387	54,668	91,764	458,818	458817.96
04.01.01.02.01.60 Fill Concrete	1.00	CY	287,379	50,291	84,418	422,089	422088.53
04.01.01.02.01.61 Pipe Gallery Slab EL 7 to EL 10	1.00	CY	532,045	93,108	156,288	781,441	781440.84
04.01.01.02.01.62 Operating Deck Slab EL 22-EL 25	1.00	CY	547,720	95,851	160,893	804,464	804463.53
04.01.01.02.01.63 Service Bridge EL 16	1.00	CY	117,684	20,595	34,570	172,848	172848.15
04.01.01.02.01.64 Entrance Ramps	1.00	CY	40,133	7,023	11,789	58,945	58944.70
04.01.01.02.01.65 Miscellaneous Slabs	1.00	CY	148,693	26,021	43,679	218,393	218392.81
04.01.01.02.01.66 Fuel Oil Storage Area	1.00	CY	88,547	15,496	26,011	130,053	130052.99
04.01.01.02.01.75 Sand Fill	3730.00	CY	23,624	4,134	6,940	34,698	9.30
TOTAL Floor Construction	1.00	SF	3,447,861	603,376	1,012,809	5,064,046	5064046
04.01.01.02.02 Roof Construction							
04.01.01.02.02.01 Structural Frame	1.00	SF	1,398,392	244,719	410,778	2,053,888	2053888
04.01.01.02.02.03 Roof Decks and Slabs	1.00	SF	187,394	32,794	55,047	275,234	275234.44
TOTAL Roof Construction	1.00	SF	1,585,785	277,512	465,824	2,329,122	2329122
04.01.01.02.03 Stair Construction							
04.01.01.02.03.01 Interior Stair Structure	1.00	VLF	33,214	5,813	9,757	48,783	48783.50
TOTAL Stair Construction	1.00	FLT	33,214	5,813	9,757	48,783	48783.50
TOTAL Superstructure	1.00	SF	5,066,861	886,701	1,488,390	7,441,952	7441952

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.01.03 Exterior Closure							
04.01.01.03.01 Exterior Walls							
04.01.01.03.01.01 Exterior Skin	29790	SF	661,079	115,689	194,192	970,960	32.59
04.01.01.03.01.04 Parapets	1.00	LF	37,226	6,514	10,935	54,675	54674.96
TOTAL Exterior Walls	1.00	SF	698,305	122,203	205,127	1,025,635	1025635
04.01.01.03.02 Exterior Windows							
04.01.01.03.02.01 Windows	1.00	SF	15,766	2,759	4,631	23,156	23155.63
TOTAL Exterior Windows	1.00	SF	15,766	2,759	4,631	23,156	23155.63
04.01.01.03.03 Exterior Personnel Doors							
04.01.01.03.03.02 Solid Doors	1.00	EA	15,869	2,777	4,662	23,308	23307.58
TOTAL Exterior Personnel Doors	1.00	EA	15,869	2,777	4,662	23,308	23307.58
TOTAL Exterior Closure	1.00	SF	729,939	127,739	214,420	1,072,098	1072098
04.01.01.04 Roofing							
04.01.01.04.01 Roofing							
04.01.01.04.01.01 Roof Coverings	1.00	SF	3,864	676	1,135	5,675	5674.78
04.01.01.04.01.06 Gutters and Downspouts	1.00	LF	6,071	1,062	1,783	8,916	8916.45
TOTAL Roofing	1.00	SF	9,934	1,739	2,918	14,591	14591.22
TOTAL Roofing	1.00	SF	9,934	1,739	2,918	14,591	14591.22
04.01.01.05 Interior Construction							
04.01.01.05.01 Partitions							
04.01.01.05.01.01 Fixed Partitions	1.00	SF	20,170	3,530	5,925	29,624	29624.50
TOTAL Partitions	1.00	SF	20,170	3,530	5,925	29,624	29624.50
04.01.01.05.02 Interior Personnel Doors							
04.01.01.05.02.01 Standard Interior Doors	1.00	EA	12,486	2,185	3,668	18,339	18338.54

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
TOTAL Interior Personnel Doors							
	1.00	EA	12,486	2,185	3,668	18,339	18338.54
04.01.01.05.04 Interior Specialties							
04.01.01.05.04.01 Guard Rails	1.00	EA	20,556	3,597	6,038	30,192	30192.14
TOTAL Interior Specialties							
	1.00	SF	20,556	3,597	6,038	30,192	30192.14
TOTAL Interior Construction							
	1.00	SF	53,212	9,312	15,631	78,155	78155.18
04.01.01.06 Interior Finishes							
04.01.01.06.01 Wall Finishes							
04.01.01.06.01.04 Tile and Terrazzo Wall Finishes	1.00	SF	7,339	1,284	2,156	10,779	10779.33
04.01.01.06.01.05 Painting to Wall	1.00	SF	39,448	6,903	11,588	57,939	57938.66
TOTAL Wall Finishes							
	1.00	SF	46,787	8,188	13,744	68,718	68717.98
04.01.01.06.02 Flooring and Floor Finishes							
04.01.01.06.02.01 Tile Floor Finishes	1.00	SF	2,995	524	880	4,399	4399.33
04.01.01.06.02.08 Painting and Staining Floors	1.00	SF	8,429	1,475	2,476	12,380	12380.02
TOTAL Flooring and Floor Finishes							
	1.00	SF	11,424	1,999	3,356	16,779	16779.36
04.01.01.06.03 Ceiling and Ceiling Finishes							
04.01.01.06.03.04 Acoustical Ceiling Tiles & Panel	1.00	SF	3,361	588	987	4,937	4936.76
04.01.01.06.03.06 Painting and Staining Ceilings	1.00	SF	33,779	5,911	9,923	49,613	49613.23
TOTAL Ceiling and Ceiling Finishes							
	1.00	SF	37,140	6,500	10,910	54,550	54549.99
TOTAL Interior Finishes							
	1.00	SF	95,351	16,686	28,009	140,047	140047.34
04.01.01.07 Mechanical							
04.01.01.07.10 Piping							
04.01.01.07.10.01 Drainage System	1.00	LF	1,544,429	270,275	453,676	2,268,380	2268380
04.01.01.07.10.02 Vacuum Priming System	1.00	LF	418,104	73,168	122,818	614,090	614089.80
04.01.01.07.10.03 Cooling Water Supply System	1.00	LF	678,949	118,816	199,441	997,206	997206.00
04.01.01.07.10.04 Waste Fuel & Engine Oil System	1.00	LF	286,715	50,175	84,223	421,113	421113.33
04.01.01.07.10.05 Lube Oil Supply System	1.00	LF	112,018	19,603	32,905	164,526	164526.32
04.01.01.07.10.06 Lubricating Water Supply System	1.00	LF	28,398	4,970	8,342	41,710	41709.79
04.01.01.07.10.07 Potable/Service Water Supply Sys	1.00	LF	10,339	1,809	3,037	15,186	15185.73

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04.01.01.07.10.08 Compressed Air System	1.00	LF	38,418	6,723	11,285	56,427	56426.92
TOTAL Piping	1.00	LF	3,117,371	545,540	915,728	4,578,638	4578638
TOTAL Mechanical	1.00	EA	3,117,371	545,540	915,728	4,578,638	4578638
04.01.01.08 Plumbing							
04.01.01.08.01 Plumbing Fixtures							
04.01.01.08.01.01 Waterclosets	1.00	EA	1,772	310	520	2,602	2601.99
04.01.01.08.01.03 Lavatories	1.00	EA	955	167	281	1,403	1402.99
04.01.01.08.01.05 Showers/Tubs	1.00	EA	1,357	237	398	1,992	1992.37
04.01.01.08.01.08 Service Sink	1.00	EA	1,926	337	566	2,829	
04.01.01.08.01.09 Kitchen Sink	1.00	EA	2,215	388	651	3,253	3253.49
TOTAL Plumbing Fixtures	1.00	EA	8,225	1,439	2,416	12,080	12080.14
04.01.01.08.02 Domestic Water Supply							
04.01.01.08.02.01 Pipes and Fittings	1.00	EA	4,620	809	1,357	6,786	6785.77
TOTAL Domestic Water Supply	1.00	EA	4,620	809	1,357	6,786	6785.77
04.01.01.08.03 Sanitary Waste and Vent System							
04.01.01.08.03.01 Waste Pipe and Fittings	1.00	EA	2,196	384	645	3,225	3225.33
04.01.01.08.03.03 Floor Drains	1.00	EA	2,127	372	625	3,125	3124.62
TOTAL Sanitary Waste and Vent System	1.00	EA	4,323	757	1,270	6,350	6349.95
04.01.01.08.05 Plumbing Equipment							
04.01.01.08.05.01 Domestic Water Equipment	1.00	EA	629	110	185	924	923.83
TOTAL Plumbing Equipment	1.00	EA	629	110	185	924	923.83
TOTAL Plumbing	1.00	EA	17,797	3,115	5,228	26,140	26139.70
04.01.01.09 HVAC							
04.01.01.09.04 Distribution Systems							
04.01.01.09.04.01 Air Distribution, Cooling and	1.00	MCF	787,142	137,750	231,223	1,156,114	1156114
TOTAL Distribution Systems	1.00	MBH	787,142	137,750	231,223	1,156,114	1156114

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
04.01.01.09.06 Controls and Instrumentation							
04.01.01.09.06.90 Controls	1.00	EA	551,157	96,452	161,902	809,511	809511.33
TOTAL Controls and Instrumentation	1.00	MBH	551,157	96,452	161,902	809,511	809511.33
TOTAL HVAC	1.00	MBH	1,338,298	234,202	393,125	1,965,626	1965626
04.01.01.11 Electric Power And Lighting							
04.01.01.11.01 Service and Distribution							
04.01.01.11.01.03 Main Switchboards	1.00	AMP	66,835	11,696	19,633	98,164	98164.12
04.01.01.11.01.04 Interior Distrib. Transformers	1.00	AMP	9,258	1,620	2,719	13,597	13597.12
04.01.01.11.01.07 Motor Control Centers	1.00	AMP	414,531	72,543	121,769	608,843	608843.00
TOTAL Service and Distribution	1.00	AMP	490,624	85,859	144,121	720,604	720604.23
04.01.01.11.02 Lighting and Branch Wiring							
04.01.01.11.02.02 Lighting Equipment	1.00	EA	215,403	37,695	63,275	316,373	316372.62
TOTAL Lighting and Branch Wiring	1.00	SF	215,403	37,695	63,275	316,373	316372.62
TOTAL Electric Power And Lighting	1.00	AMP	706,027	123,555	207,395	1,036,977	1036977
04.01.01.12 Electrical Systems							
04.01.01.12.01 Communication, Security & Alarm							
04.01.01.12.01.01 Fire Alarm Systems	1.00	OUT	50,599	8,855	14,863	74,317	74316.85
04.01.01.12.01.07 Television Systems	1.00	OUT	61,600	10,780	18,095	90,475	90475.16
04.01.01.12.01.08 Security Systems	1.00	SYS	38,624	6,759	11,346	56,728	56728.39
TOTAL Communication, Security & Alarm	1.00	SF	150,822	26,394	44,304	221,520	221520.41
04.01.01.12.02 Special Electrical Systems							
04.01.01.12.02.01 Instruments & Controls	1.00	EA	29,679	5,194	8,718	43,592	43591.55
TOTAL Special Electrical Systems	1.00	SF	29,679	5,194	8,718	43,592	43591.55
TOTAL Electrical Systems	1.00	SF	180,502	31,588	53,022	265,112	265111.96
04.01.01.13 Equipment							

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.01.13.01 Fixed and Moveable Equipment							
04.01.01.13.01.85 Bridge Crane	1.00	EA	839,930	146,988	246,729	1,233,647	1233647
04.01.01.13.01.90 Stop Logs	1.00	SF	27,181	4,757	7,985	39,923	39922.71
04.01.01.13.01.91 Elevator	1.00	EA	65,729	11,502	19,308	96,539	96538.81
TOTAL Fixed and Moveable Equipment	1.00	SF	932,840	163,247	274,022	1,370,108	1370108
TOTAL Equipment	1.00	SF	932,840	163,247	274,022	1,370,108	1370108
TOTAL Pump Station 1			16,744,484	2,930,285	4,918,692	24,593,461	
04.01.02 Equipment							
04.01.02.01 Pumps			3,807,817	666,368	1,118,546	5,592,731	
04.01.02.02 Pump Engine			9,058,304	1,585,203	2,660,877	13,304,383	
04.01.02.03 Cooling Water Pumps			119,666	20,942	35,152	175,759	
04.01.02.04 Lubrication Water Pumps			83,208	14,561	24,442	122,211	
04.01.02.05 Vacuum Pumps			150,543	26,345	44,222	221,110	
04.01.02.06 Waste Fuel & Engine Oil Equipt			456,314	79,855	134,042	670,211	
04.01.02.07 Lube Oil Pumps			90,076	15,763	26,460	132,300	
04.01.02.08 Potable Water System Equipment			74,826	13,095	21,980	109,901	
04.01.02.09 Compressed Air System			27,765	4,859	8,156	40,780	
04.01.02.10 Vacuum Pumps			162,981	28,522	47,876	239,378	
04.01.02.20 Trash Rake	1.00	EA	3,865,795	676,514	1,135,577	5,677,886	5677886
04.01.02.21 Auxillary Bay Trash Screen	1.00	EA	281,915	49,335	82,812	414,062	414062.32
TOTAL Equipment			18,179,209	3,181,362	5,340,143	26,700,714	
04.01.03 Trasn Handling System Bridge							
04.01.03.01 End Bent			7,022	1,229	2,063	10,314	
04.01.03.02 Intermediate Bent			12,117	2,121	3,559	17,797	
04.01.03.03 Approach Slabs			18,849	3,299	5,537	27,685	
04.01.03.04 Precast Concrete Piling			40,679	7,119	11,949	59,747	
04.01.03.05 Precast Concrete Bridge Deck			74,345	13,010	21,839	109,195	
04.01.03.06 Concrete Guardrail			19,500	3,412	5,728	28,640	
04.01.03.07 Steel Guardrail			9,344	1,635	2,745	13,724	
TOTAL Trash Handling System Bridge			181,856	31,825	53,420	267,102	
04.01.04 Siphon Break Structure							
04.01.04.01 Side Walls			195,846	34,273	57,530	287,649	
04.01.04.02 Bottom Slab			639,260	111,871	187,783	938,913	
04.01.04.03 Top Slab			55,444	9,703	16,287	81,433	
04.01.04.04 Manhole			3,627	635	1,065	5,327	
04.01.04.05 Guardrail			7,475	1,308	2,196	10,979	

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04.01.04.06 Waterstop			4,977	871	1,462	7,310	
TOTAL Siphon Break Structure			906,630	158,660	266,322	1,331,612	
04.01.05 Saxophone Discharge							
04.01.05.01 Excavation			4,002	700	1,175	5,877	
04.01.05.02 Cofferdam			1,093,179	191,306	321,121	1,605,607	
04.01.05.03 Backfilling			7,307	1,279	2,146	10,732	
TOTAL Saxophone Discharge			1,104,487	193,285	324,443	1,622,216	
04.01.06 Equipment Building	1.00	JB	29,324	5,132	8,614	43,070	43070.32
04.01.07 Sheet Pile Retaining Wall	1.00	JB	3,099,209	542,362	910,393	4,551,964	4551964
04.01.08 Earthwork Final Grading	1.00	JB	23,843	4,173	7,004	35,019	35019.29
04.01.09 Pavement	92167	SF	219,162	38,353	64,379	321,894	3.49
04.01.10 Concrete Paved Ditch	85.00	CY	8,524	1,492	2,504	12,519	147.28
04.01.11 Channel Excavation	240430	CY	192,923	33,761	56,671	283,355	1.18
04.01.12 Septic Tank & Drain Field	1.00	EA	16,992	2,974	4,991	24,957	24956.63
04.01.13 Storm Sewer Piping	1.00	EA	19,797	3,465	5,815	29,077	29077.20
TOTAL Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4							
04.02.01 Pump Station 4 - C43P4							
04.02.01.01 Substructure							
04.02.01.01.02 Special Foundation Conditions							
04.02.01.01.02.04 Dewatering	1.00	SF	268,853	47,049	78,976	394,878	394877.86
TOTAL Special Foundation Conditions	1.00	SF	268,853	47,049	78,976	394,878	394877.86
04.02.01.01.04 Foundation Excavation							
04.02.01.01.04.01 Excavation for Foundation	1.00	CY	3,210	562	943	4,714	4714.14
TOTAL Foundation Excavation	1.00	CY	3,210	562	943	4,714	4714.14
TOTAL Substructure	1.00	SF	272,063	47,611	79,918	399,592	399592.00
04.02.01.02 Superstructure							
04.02.01.02.03 Stair Construction							

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04.02.01.02.03.01 Interior Stair Structure	1.00	VLF	1,627	285	478	2,390	2389.88
TOTAL Stair Construction	1.00	FLT	1,627	285	478	2,390	2389.88
TOTAL Superstructure	1.00	SF	1,627	285	478	2,390	2389.88
04.02.01.03 Exterior Closure							
04.02.01.03.01 Exterior Walls							
04.02.01.03.01.01 Exterior Skin	1.00	SF	10,717	1,876	3,148	15,741	15740.84
04.02.01.03.01.03 Interior Skin	1.00	SF	2,187	383	643	3,213	3212.51
TOTAL Exterior Walls	1.00	SF	12,904	2,258	3,791	18,953	18953.36
04.02.01.03.03 Exterior Personnel Doors							
04.02.01.03.03.02 Solid Doors	1.00	EA	8,308	1,454	2,440	12,202	12202.05
TOTAL Exterior Personnel Doors	1.00	EA	8,308	1,454	2,440	12,202	12202.05
TOTAL Exterior Closure	1.00	SF	21,212	3,712	6,231	31,155	31155.41
04.02.01.04 Roofing							
04.02.01.04.01 Roofing							
04.02.01.04.01.01 Roof Coverings	1.00	SF	53,701	9,398	15,775	78,873	78873.37
04.02.01.04.01.05 Roofing Openings & Supports	1.00	SF	1,700	297	499	2,497	2496.60
04.02.01.04.01.06 Gutters and Downspouts	1.00	LF	1,732	303	509	2,544	2544.36
TOTAL Roofing	1.00	SF	57,133	9,998	16,783	83,914	83914.34
TOTAL Roofing	1.00	SF	57,133	9,998	16,783	83,914	83914.34
04.02.01.05 Interior Construction							
04.02.01.05.02 Interior Personnel Doors							
04.02.01.05.02.01 Standard Interior Doors	1.00	EA	2,542	445	747	3,734	3733.59
TOTAL Interior Personnel Doors	1.00	EA	2,542	445	747	3,734	3733.59
04.02.01.05.04 Interior Specialties							
04.02.01.05.04.01 Guard Rails	1.00	EA	15,158	2,653	4,453	22,263	22262.89

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04.02.01.05.04.03 Stairs & Ladders	1.00	SF	33,214	5,812	9,757	48,783	48783.46
TOTAL Interior Specialties	1.00	SF	48,372	8,465	14,209	71,046	71046.35
TOTAL Interior Construction	1.00	SF	50,914	8,910	14,956	74,780	74779.94
04.02.01.09 HVAC							
04.02.01.09.04 Distribution Systems							
04.02.01.09.04.01 Air Distribution, Cooling and	1.00	MCF	26,871	4,702	7,893	39,466	39466.28
TOTAL Distribution Systems	1.00	MBH	26,871	4,702	7,893	39,466	39466.28
04.02.01.09.06 Controls and Instrumentation							
04.02.01.09.06.90 Controls	1.00	EA	56,648	9,913	16,640	83,202	83202.47
TOTAL Controls and Instrumentation	1.00	MBH	56,648	9,913	16,640	83,202	83202.47
TOTAL HVAC	1.00	MBH	83,519	14,616	24,534	122,669	122668.75
04.02.01.11 Electrical							
04.02.01.11.01 Service and Distribution							
04.02.01.11.01.9X Service And Distribution			233,508	40,864	68,593	342,965	
TOTAL Service and Distribution	1.00	AMP	233,508	40,864	68,593	342,965	342965.38
TOTAL Electrical	1.00	AMP	233,508	40,864	68,593	342,965	342965.38
TOTAL Pump Station 4 - C43P4			719,977	125,996	211,493	1,057,466	
04.02.02 Equipment							
04.02.02.01 Barrel Pump & Motor	3.00	3A	2,024,227	354,240	594,617	2,973,083	991027.77
TOTAL Equipment			2,024,227	354,240	594,617	2,973,083	
04.02.04 Intake Structure							
04.02.04.01 Footing	1.00	EA	257,152	45,002	75,538	377,692	377691.79
04.02.04.02 Abutments, Piers, Backwall	1.00	EA	724,930	126,863	212,948	1,064,740	1064740
04.02.04.03 Intake Noses	1.00	EA	2,401	420	705	3,527	3526.99

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04.02.04.04 Keyway	1.00	EA	4,546	796	1,335	6,677	6676.62
TOTAL Intake Structure			989,029	173,080	290,527	1,452,636	
04.02.05 Pump House/ Discharge Structure							
04.02.05.01 Wall Footings			36,880	6,454	10,834	54,168	
04.02.05.02 Foundation Wall			25,443	4,453	7,474	37,369	
04.02.05.03 Slabs			71,903	12,583	21,122	105,608	
04.02.05.04 Columns			32,196	5,634	9,458	47,289	
04.02.05.05 Beams			46,603	8,156	13,690	68,448	
04.02.05.06 Chamber Walls			56,388	9,868	16,564	82,819	
04.02.05.08 Approach Slab			58,302	10,203	17,126	85,631	
04.02.05.09 Intake Slab			16,478	2,884	4,841	24,203	
04.02.05.10 Discharge Chamber Keyway			4,082	714	1,199	5,996	
04.02.05.11 Equipment Pads			1,235	216	363	1,813	
TOTAL Pump House/ Discharge Structure			349,510	61,164	102,669	513,343	
04.02.06 Retaining Walls			89,002	15,575	26,144	130,722	
04.02.10 Sitework			976,418	170,873	286,823	1,434,113	
TOTAL Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate Sl							
05.01.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.01.03 Concrete							
05.01.03.01 Conduits							
05.01.03.01.10 Typical Conduit							
05.01.03.01.10.01 Base Slab	1.00	EA	66,822	11,694	19,629	98,145	98145.33
05.01.03.01.10.02 Center Haunch	1.00	EA	3,729	653	1,095	5,477	5476.71
05.01.03.01.10.03 Top Slab	1.00	EA	80,810	14,142	23,738	118,689	118689.49
05.01.03.01.10.04 Walls	1.00	EA	58,470	10,232	17,175	85,877	85877.47
TOTAL Typical Conduit	1.00	EA	209,831	36,720	61,638	308,189	308189.00
05.01.03.01.15 Conduit at Gatewell							
05.01.03.01.15.01 Base Slab	1.00	EA	22,863	4,001	6,716	33,581	33580.67

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05.01.03.01.15.02 Top Slab	1.00	EA	22,784	3,987	6,693	33,464	33464.11
05.01.03.01.15.03 Walls	1.00	EA	29,145	5,100	8,561	42,807	42806.86
TOTAL Conduit at Gatewell	1.00	EA	74,793	13,089	21,970	109,852	109851.65
TOTAL Conduits	1.00	EA	284,623	49,809	83,608	418,041	418040.65
05.01.03.02 Gatewell							
05.01.03.02.10 Gatewell							
05.01.03.02.10.01 Walls (I to Flow)	1.00	EA	27,219	4,763	7,995	39,977	39977.35
05.01.03.02.10.02 Walls (II to Flow)	1.00	EA	18,017	3,153	5,292	26,462	26462.35
05.01.03.02.10.03 Air Vent Castings	1.00	EA	1,451	254	426	2,131	2131.22
TOTAL Gatewell	1.00	EA	46,687	8,170	13,714	68,571	68570.91
TOTAL Gatewell	1.00	EA	46,687	8,170	13,714	68,571	68570.91
05.01.03.03 Intake							
05.01.03.03.01 Intake							
05.01.03.03.01.01 Base Slab	1.00	EA	59,944	10,490	17,609	88,043	88043.29
05.01.03.03.01.02 Top Girders	1.00	EA	5,056	885	1,485	7,425	7425.44
05.01.03.03.01.03 Top Beams	1.00	EA	3,229	565	948	4,742	4742.21
05.01.03.03.01.04 Headwall	1.00	EA	29,484	5,160	8,661	43,305	43304.93
05.01.03.03.01.05 Backside Intake Double Wall	1.00	EA	42,640	7,462	12,525	62,627	62626.97
05.01.03.03.01.06 Transition To Conduit	1.00	EA	8,620	1,509	2,532	12,661	12661.15
05.01.03.03.01.07 Transition To Conduit	1.00	EA	830	145	244	1,219	1219.02
05.01.03.03.01.08 Walls (II to Flow)	1.00	EA	42,235	7,391	12,407	62,033	62033.15
05.01.03.03.01.09 Divider Wall (II to Flow)	1.00	EA	8,665	1,516	2,545	12,726	12726.02
05.01.03.03.01.10 Center Columns	1.00	EA	3,109	544	913	4,566	4565.84
TOTAL Intake	1.00	EA	203,811	35,667	59,870	299,348	299348.03
TOTAL Intake	1.00	EA	203,811	35,667	59,870	299,348	299348.03
05.01.03.04 Stilling Basin							
05.01.03.04.01 Stilling Basin Parabolic							
05.01.03.04.01.01 Walls	1.00	EA	32,588	5,703	9,573	47,864	47863.98
05.01.03.04.01.02 Base Slab	1.00	EA	14,224	2,489	4,178	20,891	20891.38
05.01.03.04.01.03 Shear Key	1.00	EA	1,411	247	414	2,072	2071.69
05.01.03.04.01.04 Top Slab	1.00	EA	11,544	2,020	3,391	16,955	16954.93
TOTAL Stilling Basin Parabolic	1.00	EA	59,766	10,459	17,556	87,782	87781.98

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATOIA

UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
05.01.03.04.02 Stilling Hydraulic Jump Basin							
05.01.03.04.02.01 Walls	1.00	EA	42,516	7,440	12,489	62,445	62444.82
05.01.03.04.02.02 Base Slab	1.00	EA	25,704	4,498	7,550	37,752	37752.07
05.01.03.04.02.03 Toe Support	1.00	EA	1,343	235	394	1,972	1972.40
05.01.03.04.02.04 Chute Blocks	1.00	EA	624	109	183	917	916.56
05.01.03.04.02.05 Baffle Blocks	1.00	EA	670	117	197	984	984.36
05.01.03.04.02.06 End Sill	1.00	EA	1,302	228	382	1,912	1911.83
05.01.03.04.02.07 Bridge Slab	1.00	EA	9,886	1,730	2,904	14,520	14519.86
05.01.03.04.02.08 Bridge Slab Sills	1.00	EA	636	111	187	934	933.98
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	82,680	14,469	24,287	121,436	121435.87
05.01.03.04.02 Stilling Hydraulic Jump Basin							
TOTAL Stilling Basin	1.00	EA	142,446	24,928	41,844	209,218	209217.85
TOTAL Concrete							
	1.00	EA	677,568	118,574	199,035	995,177	995177.44
05.01.04 Rip Rap							
05.01.05 Gates	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.01.11 Electrical	1.00	EA	935,653	163,739	274,848	1,374,241	1374241
05.01.15 Equipment Building	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.01.90 Miscellaneous	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.01.95 Controls	1.00	EA	92,477	16,183	27,165	135,825	135825.38
TOTAL Gate SI	1.00	EA	60,910	10,659	17,892	89,461	89460.90
	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8							
05.04.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
TOTAL Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.04.03 Concrete							
05.04.03.01 Conduits							
05.04.03.01.10 Typical Conduit							
05.04.03.01.10.01 Base Slab			66,822	11,694	19,629	98,145	98145
05.04.03.01.10.02 Center Haunch			3,729	653	1,095	5,477	5477
05.04.03.01.10.03 Top Slab			72,344	12,660	21,251	106,255	106255
05.04.03.01.10.04 Walls			58,470	10,232	17,175	85,877	85877
TOTAL Typical Conduit			201,365	35,239	59,151	295,754	295754
05.04.03.01.15 Conduit at Gatewell							
05.04.03.01.15.01 Base Slab			24,216	4,238	7,114	35,568	35568

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
05.04.03.01.15.02 Top Slab			22,784	3,987	6,693	33,464	
05.04.03.01.15.03 Walls			29,145	5,100	8,561	42,807	
TOTAL Conduit at Gatewell			76,145	13,325	22,368	111,839	
TOTAL Conduits	1.00	EA	277,510	48,564	81,519	407,593	407592.70
05.04.03.02 Gatewell							
05.04.03.02.10 Gatewell							
05.04.03.02.10.01 Walls (I to Flow)			25,431	4,450	7,470	37,352	
05.04.03.02.10.02 Walls (II to Flow)			15,388	2,693	4,520	22,602	
05.04.03.02.10.03 Air Vent Castings			1,203	211	353	1,767	
TOTAL Gatewell			42,023	7,354	12,344	61,721	
TOTAL Gatewell			42,023	7,354	12,344	61,721	
05.04.03.03 Intake							
05.04.03.03.01 Intake							
05.04.03.03.01.01 Base Slab	1.00	EA	61,517	10,765	18,071	90,353	90352.56
05.04.03.03.01.02 Top Girders	1.00	EA	5,063	886	1,487	7,436	7435.77
05.04.03.03.01.03 Top Beams	1.00	EA	3,333	583	979	4,895	4894.63
05.04.03.03.01.04 Headwall	1.00	EA	26,064	4,561	7,656	38,281	38281.49
05.04.03.03.01.05 Backside Intake Double Wall	1.00	EA	37,588	6,578	11,041	55,207	55206.74
05.04.03.03.01.06 Transition To Conduit	1.00	EA	8,788	1,534	2,576	12,878	12877.51
05.04.03.03.01.07 Transition To Conduit	1.00	EA	845	148	248	1,241	1240.66
05.04.03.03.01.08 Walls (II to Flow)	1.00	EA	37,339	6,534	10,968	54,842	54841.51
05.04.03.03.01.09 Divider Wall (II to Flow)	1.00	EA	8,797	1,539	2,584	12,921	12920.74
05.04.03.03.01.10 Center Columns	1.00	EA	3,109	544	913	4,566	4565.84
TOTAL Intake	1.00	EA	192,420	33,674	56,523	282,617	282617.45
TOTAL Intake	1.00	EA	192,420	33,674	56,523	282,617	282617.45
05.04.03.04 Stilling Basin							
05.04.03.04.01 Stilling Basin Parabolic							
05.04.03.04.01.01 Walls	1.00	EA	31,414	5,497	9,228	46,139	46139.13
05.04.03.04.01.02 Base Slab	1.00	EA	14,271	2,497	4,192	20,961	20960.70
05.04.03.04.01.03 Shear Key	1.00	EA	1,425	249	419	2,093	2093.32
05.04.03.04.01.04 Top Slab	1.00	EA	11,624	2,034	3,414	17,072	17072.30
TOTAL Stilling Basin Parabolic	1.00	EA	58,734	10,278	17,253	86,265	86265.45

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
05.04.03.04.02 Stilling Hydraulic Jump Basin							
05.04.03.04.02.01 Walls	1.00	EA	40,426	7,074	11,875	59,375	59374.95
05.04.03.04.02.02 Base Slab	1.00	EA	25,782	4,512	7,574	37,868	37867.59
05.04.03.04.02.03 Shear Key	1.00	EA	1,425	249	419	2,093	2093.32
05.04.03.04.02.04 Chute Blocks	1.00	EA	624	109	183	917	916.56
05.04.03.04.02.05 Baffle Blocks	1.00	EA	670	117	197	984	984.36
05.04.03.04.02.06 End Sill	1.00	EA	1,302	228	382	1,912	1911.83
05.04.03.04.02.07 Bridge Slab	1.00	EA	9,917	1,736	2,913	14,566	14566.06
05.04.03.04.02.08 Bridge Slab Sills	1.00	EA	636	111	187	934	933.98
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	80,782	14,137	23,730	118,649	118648.66
05.04.03.04.02 Stilling Hydraulic Jump Basin							
TOTAL Stilling Basin	1.00	EA	139,516	24,415	40,983	204,914	204914.11
TOTAL Concrete	1.00	EA	651,469	114,007	191,369	956,845	956845.00
05.04.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.04.05 Gates	1.00	EA	935,437	163,701	274,784	1,373,922	1373922
05.04.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.04.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.04.90 Miscellaneous	1.00	EA	90,750	15,881	26,658	133,289	133289.01
05.04.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure							
06.01 Gate S12							
06.01.03 Concrete							
06.01.03.01 Conduits							
06.01.03.01.10 Typical Conduit							
06.01.03.01.10.01 Base Slab			92,163	16,128	27,073	135,364	
06.01.03.01.10.02 Center Haunch			7,165	1,254	2,105	10,524	
06.01.03.01.10.03 Top Slab			111,619	19,533	32,788	163,940	
06.01.03.01.10.04 Walls			73,649	12,889	21,634	108,172	
TOTAL Typical Conduit			284,595	49,804	83,600	417,999	
06.01.03.01.15 Conduit at Gatewell							
06.01.03.01.15.01 Base Slab			35,122	6,146	10,317	51,585	
06.01.03.01.15.02 Top Slab			32,320	5,656	9,494	47,470	

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
06.01.03.01.15.03 Walls			42,316	7,405	12,430	62,152	
TOTAL Conduit at Gatewell			109,758	19,208	32,242	161,208	
TOTAL Conduits	1.00	EA	394,354	69,012	115,841	579,207	579206.75
06.01.03.02 Gatewell							
06.01.03.02.10 Gatewell							
06.01.03.02.10.01 Walls (I to Flow)			43,168	7,554	12,681	63,403	
06.01.03.02.10.02 Walls (II to Flow)			23,859	4,175	7,009	35,044	
06.01.03.02.10.03 Air Vent Castings			2,881	504	846	4,232	
TOTAL Gatewell			69,909	12,234	20,536	102,679	
TOTAL Gatewell			69,909	12,234	20,536	102,679	
06.01.03.04 Stilling Basin 1							
06.01.03.04.01 Stilling Basin Parabolic							
06.01.03.04.01.01 Walls	1.00	EA	25,534	4,469	7,501	37,503	37503.49
06.01.03.04.01.02 Base Slab	1.00	EA	20,623	3,609	6,058	30,289	30289.34
06.01.03.04.01.03 Shear Key	1.00	EA	1,855	325	545	2,725	2725.18
06.01.03.04.01.04 Top Slab	1.00	EA	23,478	4,109	6,897	34,483	34482.70
TOTAL Stilling Basin Parabolic	1.00	EA	71,490	12,511	21,000	105,001	105000.70
06.01.03.04.02 Stilling Hydraulic Jump Basin							
06.01.03.04.02.01 Exterior Walls	1.00	EA	11,176	1,956	3,283	16,415	16415.35
06.01.03.04.02.02 Interior Short Walls	1.00	EA	1,400	245	411	2,056	2055.99
06.01.03.04.02.03 Base Slab	1.00	EA	32,880	5,754	9,658	48,292	48292.16
06.01.03.04.02.04 End Wall & Toe Support	1.00	EA	12,770	2,235	3,751	18,755	18755.39
06.01.03.04.02.05 Chute Blocks	1.00	EA	332	58	98	488	487.77
06.01.03.04.02.06 Baffle Blocks	1.00	EA	967	169	284	1,421	1420.85
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	59,525	10,417	17,486	87,428	87427.52
TOTAL Stilling Basin 1	1.00	EA	131,015	22,928	38,486	192,428	192428.23
06.01.03.05 Stilling Basin 2							
06.01.03.05.01 Stilling Basin Parabolic							
06.01.03.05.01.01 Walls	1.00	EA	25,534	4,469	7,501	37,503	37503.49

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
06.01.03.05.01.02 Base Slab	1.00	EA	20,623	3,609	6,058	30,289	30289.34
06.01.03.05.01.03 Shear Key	1.00	EA	1,855	325	545	2,725	2725.18
06.01.03.05.01.04 Top Slab	1.00	EA	23,478	4,109	6,897	34,483	34482.70
TOTAL Stilling Basin Parabolic	1.00	EA	71,490	12,511	21,000	105,001	105000.70
06.01.03.05.02 Stilling Hydraulic Jump Basin							
06.01.03.05.02.01 Exterior Walls	1.00	EA	11,176	1,956	3,283	16,415	16415.35
06.01.03.05.02.02 Interior Short Walls	1.00	EA	1,400	245	411	2,056	2055.99
06.01.03.05.02.03 Base Slab	1.00	EA	32,880	5,754	9,658	48,292	48292.16
06.01.03.05.02.04 End Wall & Toe Support	1.00	EA	12,770	2,235	3,751	18,755	18755.39
06.01.03.05.02.05 Chute Blocks	1.00	EA	332	58	98	488	487.77
06.01.03.05.02.06 Baffle Blocks	1.00	EA	967	169	284	1,421	1420.85
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	59,525	10,417	17,486	87,428	87427.52
TOTAL Stilling Basin 2	1.00	EA	131,015	22,928	38,486	192,428	192428.23
TOTAL Concrete	1.00	EA	726,292	127,101	213,348	1,066,742	1066742
06.01.05 Gates	1.00	EA	262,328	45,907	77,059	385,294	385294.22
06.01.11 Electrical	1.00	EA	444,201	77,735	130,484	652,421	652420.92
06.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
06.01.90 Miscellaneous	1.00	EA	82,655	14,465	24,280	121,400	121399.97
06.01.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S12	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures							
07.01 Gate S3							
07.01.01 Excavation	1.00	JB	2,762	483	811	4,057	4057.00
07.01.02 Sheet Piling	1.00	EA	135,881	23,779	39,915	199,575	199575.21
07.01.03 Concrete							
07.01.03.01 Slab On Grade							
07.01.03.01.01 Bottom Slab At Culvert	1.00	EA	13,061	2,286	3,837	19,183	19183.16
07.01.03.01.02 Roadway Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.01.03.01.03 Apron Slab	1.00	EA	30,328	5,307	8,909	44,544	44543.96
TOTAL Slab On Grade	1.00	EA	46,915	8,210	13,781	68,906	68905.72

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
07.01.03.02 Walls							
07.01.03.02.01 Abutment Upstream	1.00	EA	176,604	30,906	51,877	259,387	259,386.83
07.01.03.02.02 Abutment Downstream	1.00	EA	21,300	3,727	6,257	31,284	31,283.81
07.01.03.02.03 Pier	1.00	EA	5,876	1,028	1,726	8,630	8,630.34
07.01.03.02.04 Exterior Walls	1.00	EA	10,142	1,775	2,979	14,896	14,895.72
07.01.03.02.05 Interior Wall	1.00	EA	6,380	1,116	1,874	9,371	9,370.59
07.01.03.02.06 Head Wall	1.00	EA	9,687	1,695	2,846	14,228	14,228.19
TOTAL Walls	1.00	EA	229,988	40,248	67,559	337,795	337,795.48
07.01.03.03 Sill							
07.01.03.03.01 End Sill	1.00	EA	599	105	176	880	879.97
07.01.03.03.02 For Dewatering Needles	1.00	EA	391	68	115	574	573.56
TOTAL Sill	1.00	EA	990	173	291	1,454	1,453.53
07.01.03.04 Baffles							
07.01.03.04.01 Baffles	1.00	EA	852	149	250	1,252	1,251.75
TOTAL Baffles	1.00	EA	852	149	250	1,252	1,251.75
07.01.03.07 Elevated Slabs							
07.01.03.07.01 Top Slab At Culvert	1.00	EA	15,937	2,789	4,682	23,408	23,408.08
07.01.03.07.02 Roadway	1.00	EA	2,713	475	797	3,984	3,984.15
07.01.03.07.03 Operating Platform	1.00	EA	804	141	236	1,182	1,181.58
TOTAL Elevated Slabs	1.00	EA	19,455	3,405	5,715	28,574	28,573.81
07.01.03.08 Breast Wall							
07.01.03.08.01 Breast Wall	1.00	EA	2,117	371	622	3,110	3,109.57
TOTAL Breast Wall	1.00	EA	2,117	371	622	3,110	3,109.57
07.01.03.09 Pile Cap							
07.01.03.09.01 Pile Cap	1.00	EA	4,849	849	1,424	7,122	7,122.25
TOTAL Pile Cap	1.00	EA	4,849	849	1,424	7,122	7,122.25
07.01.03.10 Seal Concrete							

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
07.01.03.10.01 Seal Concrete	1.00	EA	56,056	9,810	16,466	82,332	82332.04
TOTAL Seal Concrete	1.00	EA	56,056	9,810	16,466	82,332	82332.04
TOTAL Concrete	1.00	EA	361,222	63,214	106,109	530,544	530544.14
07.01.04 Erosion Control System	1.00	JB	19,509	3,414	5,731	28,653	28653.36
07.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
07.01.06 Rip Rap	1.00	EA	17,762	3,108	5,217	26,087	26087.43
07.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
07.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.01.93 Controls	1.00	EA	386,585	67,652	113,559	567,796	567796.23
TOTAL Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10							
07.02.01 Excavation	1.00	JB	4,505	788	1,323	6,616	6616.12
07.02.02 Sheet Piling	1.00	EA	212,839	37,247	62,521	312,607	312606.58
07.02.03 Concrete							
07.02.03.01 Slab On Grade							
07.02.03.01.01 Bridge Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.02.03.01.02 Ladder Platform	1.00	EA	3,755	657	1,103	5,516	5515.78
07.02.03.01.03 Apron Slab	1.00	EA	173,290	30,326	50,904	254,519	254519.18
TOTAL Slab On Grade	1.00	EA	180,571	31,600	53,043	265,214	265213.57
07.02.03.02 Walls							
07.02.03.02.01 Abutment	1.00	EA	74,378	13,016	21,849	109,243	109242.63
07.02.03.02.02 Pier	1.00	EA	75,979	13,296	22,319	111,594	111593.93
TOTAL Walls	1.00	EA	150,357	26,312	44,167	220,837	220836.56
07.02.03.03 Columns							
07.02.03.03.01 Abutments	1.00	EA	9,128	1,597	2,681	13,407	13407.13
07.02.03.03.02 Piers	1.00	EA	10,140	1,775	2,979	14,893	14893.14
TOTAL Columns	1.00	EA	19,268	3,372	5,660	28,300	28300.27
07.02.03.04 Weir							

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL	COST	UNIT	COST
07.02.03.04.01 Under Roller Gate	1.00	EA	6,634	1,161	1,949	9,744	9744.14		
TOTAL Weir	1.00	EA	6,634	1,161	1,949	9,744	9744.14		
07.02.03.05 Sill									
07.02.03.05.01 Under Weir Gate	1.00	EA	3,160	553	928	4,641	4641.43		
TOTAL Sill	1.00	EA	3,160	553	928	4,641	4641.43		
07.02.03.06 Baffles									
07.02.03.06.01 Baffles	1.00	EA	3,712	650	1,090	5,452	5451.95		
TOTAL Baffles	1.00	EA	3,712	650	1,090	5,452	5451.95		
07.02.03.07 Elevated Slabs									
07.02.03.07.01 Service Bridge Slab	1.00	EA	24,488	4,285	7,193	35,966	35966.36		
07.02.03.07.02 Operating Platform	1.00	EA	11,971	2,095	3,516	17,582	17581.90		
TOTAL Elevated Slabs	1.00	EA	36,458	6,380	10,710	53,548	53548.27		
07.02.03.08 Breast Wall									
07.02.03.08.01 Breast Wall	1.00	EA	2,561	448	752	3,761	3761.29		
TOTAL Breast Wall	1.00	EA	2,561	448	752	3,761	3761.29		
07.02.03.09 Pile Cap									
07.02.03.09.01 Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56		
TOTAL Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56		
07.02.03.10 Seal Concrete									
07.02.03.10.01 Seal Concrete	1.00	EA	91,454	16,004	26,865	134,323	134323.47		
TOTAL Seal Concrete	1.00	EA	91,454	16,004	26,865	134,323	134323.47		
TOTAL Concrete	1.00	EA	501,442	87,752	147,299	736,493	736493.50		
07.02.04 Erosion Control System	1.00	JB	23,413	4,097	6,877	34,387	34387.39		
07.02.05 Gates	1.00	EA	352,498	61,687	103,546	517,731	517731.33		

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
07.02.06 Rip Rap	1.00	EA	27,858	4,875	8,183	40,917	40916.66
07.02.11 Electrical	1.00	EA	374,950	65,616	110,142	550,708	550707.83
07.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.02.95 Controls	1.00	EA	136,230	23,840	40,018	200,088	200087.82
TOTAL Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11							
07.03.01 Excavation	1.00	JB	6,679	1,169	1,962	9,810	9809.57
07.03.02 Sheet Piling	1.00	EA	450,150	78,776	132,231	661,157	661157.32
07.03.03 Concrete							
07.03.03.01 Slab On Grade							
07.03.03.01.01 Bridge Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.03.03.01.02 Ladder Platform	1.00	EA	3,755	657	1,103	5,516	5515.78
07.03.03.01.03 Apron Slab	1.00	EA	273,724	47,902	80,406	402,032	402031.83
TOTAL Slab On Grade	1.00	EA	281,005	49,176	82,545	412,726	412726.22
07.03.03.02 Walls							
07.03.03.02.01 Abutment	1.00	EA	122,414	21,422	35,959	179,795	179795.21
07.03.03.02.02 Pier	1.00	EA	136,654	23,915	40,142	200,711	200711.04
TOTAL Walls	1.00	EA	259,068	45,337	76,101	380,506	380506.24
07.03.03.03 Columns							
07.03.03.03.01 Abutments	1.00	EA	9,128	1,597	2,681	13,407	13407.13
07.03.03.03.02 Piers	1.00	EA	14,165	2,479	4,161	20,806	20805.52
TOTAL Columns	1.00	EA	23,294	4,076	6,843	34,213	34212.65
07.03.03.04 Weir							
07.03.03.04.01 Under Roller Gate	1.00	EA	52,489	9,186	15,419	77,093	77093.34
TOTAL Weir	1.00	EA	52,489	9,186	15,419	77,093	77093.34
07.03.03.05 Sill							
07.03.03.05.01 Under Weir Gate	1.00	EA	9,183	1,607	2,698	13,488	13487.82

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
TOTAL Sill	1.00	EA	9,183	1,607	2,698	13,488	13487.82
07.03.03.07 Elevated Slabs							
07.03.03.07.01 Service Bridge Slab	1.00	EA	50,602	8,855	14,864	74,322	74321.93
07.03.03.07.02 Operating Platform	1.00	EA	16,480	2,884	4,841	24,206	24205.57
TOTAL Elevated Slabs	1.00	EA	67,083	11,739	19,706	98,528	98527.51
07.03.03.08 Breast Wall							
07.03.03.08.01 Breast Wall	1.00	EA	2,257	395	663	3,314	3314.40
TOTAL Breast Wall	1.00	EA	2,257	395	663	3,314	3314.40
07.03.03.09 Pile Cap							
07.03.03.09.01 Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
TOTAL Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
07.03.03.10 Seal Concrete							
07.03.03.10.01 Seal Concrete	1.00	EA	135,677	23,744	39,855	199,276	199275.93
TOTAL Seal Concrete	1.00	EA	135,677	23,744	39,855	199,276	199275.93
TOTAL Concrete	1.00	EA	837,322	146,531	245,963	1,229,817	1229817
07.03.04 Erosion Control System							
07.03.05 Gates	1.00	JB	30,486	5,335	8,955	44,777	44776.61
07.03.06 Rip Rap	1.00	EA	518,168	90,679	152,212	761,060	761059.98
07.03.11 Electrical	1.00	EA	44,804	7,841	13,161	65,805	65805.16
07.03.15 Equipment Building	1.00	EA	384,236	67,241	112,869	564,347	564347.22
07.03.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate Sill	1.00	EA	28,054	4,910	8,241	41,205	41204.82
TOTAL Perimeter Canal Structures	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358
08 Crested Spillway							
08.01 Gate CS1 Crest Spillway	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08.01.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
-----							
TOTAL Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
-----							
08.01.03 Concrete							
08.01.03.01 Conduits							
08.01.03.01.10 Boxed Conduit							
08.01.03.01.10.01 Conduit Base Slab	1.00	EA	15,922	2,786	4,677	23,385	23385.48
08.01.03.01.10.02 Top Slab	1.00	EA	17,578	3,076	5,163	25,817	25817.31
08.01.03.01.10.03 Walls	1.00	EA	16,359	2,863	4,806	24,028	24027.88
TOTAL Boxed Conduit	1.00	EA	49,859	8,725	14,646	73,231	73230.67
-----							
08.01.03.01.15 U-Shaped Conduit							
08.01.03.01.15.01 Base Slab	1.00	EA	17,517	3,065	5,146	25,728	25728.09
08.01.03.01.15.02 Walls	1.00	EA	18,041	3,157	5,300	26,498	26497.89
TOTAL U-Shaped Conduit	1.00	EA	35,558	6,223	10,445	52,226	52225.98
TOTAL Conduits	1.00	EA	85,417	14,948	25,091	125,457	125456.65
-----							
08.01.03.02 Weir Inlet							
08.01.03.02.01 Weir Inlet							
08.01.03.02.01.01 Base Slab	1.00	EA	28,244	4,943	8,297	41,484	41483.71
08.01.03.02.01.02 Weir	1.00	EA	19,596	3,429	5,756	28,781	28781.25
08.01.03.02.01.03 Transition To Conduit	1.00	EA	3,959	693	1,163	5,815	5814.70
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
-----							
08.01.03.04 Stilling Basin							
08.01.03.04.01 Stilling Basin Parabolic							
08.01.03.04.01.01 Walls	1.00	EA	46,708	8,174	13,720	68,602	68601.96
08.01.03.04.01.02 Base Slab	1.00	EA	23,024	4,029	6,763	33,816	33816.08
08.01.03.04.01.03 Top Slab	1.00	EA	9,984	1,747	2,933	14,664	14664.02
TOTAL Stilling Basin Parabolic	1.00	EA	79,715	13,950	23,416	117,082	117082.06
08.01.03.04.02 Stilling Hydraulic Jump Basin							

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTING	TOTAL COST	UNIT COST
08.01.03.04.02.01 Walls	1.00	EA	68,845	12,048	20,223	101,116	101116.31
08.01.03.04.02.02 Base Slab	1.00	EA	27,128	4,747	7,969	39,844	39844.44
08.01.03.04.02.03 Shear Key	1.00	EA	712	125	209	1,046	1045.93
08.01.03.04.02.04 Chute Blocks	1.00	EA	147	26	43	217	216.62
08.01.03.04.02.05 End Sill	1.00	EA	365	64	107	536	535.77
08.01.03.04.02.06 Bridge Slab	1.00	EA	4,518	791	1,327	6,636	6636.33
08.01.03.04.02.07 Top Slab	1.00	EA	3,517	616	1,033	5,166	5166.11
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	105,233	18,416	30,912	154,562	154561.51
TOTAL Stilling Basin	1.00	EA	184,949	32,366	54,329	271,644	271643.57
TOTAL Concrete	1.00	EA	322,165	56,379	94,636	473,180	473179.88
08.01.06 Rip Rap	1.00	EA	50,976	8,921	14,974	74,871	74870.69
08.01.90 Miscellaneous	1.00	EA	11,479	2,009	3,372	16,859	16859.12
TOTAL Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.02.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
TOTAL Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.02.03 Concrete	1.00	EA	15,859	2,775	4,659	23,293	23293.06
08.02.03.01.10 Conduits	1.00	EA	17,515	3,065	5,145	25,725	25724.90
08.02.03.01.10.01 Boxed Conduit	1.00	EA	16,315	2,855	4,793	23,963	23962.97
08.02.03.01.10.02 Conduit Base Slab	1.00	EA	49,689	8,696	14,596	72,981	72980.93
08.02.03.01.10.03 Top Slab	1.00	EA	11,260	1,971	3,308	16,539	16538.85
08.02.03.01.10.04 Walls	1.00	EA	11,652	2,039	3,423	17,114	17114.27
TOTAL U-Shaped Conduit	1.00	EA	22,913	4,010	6,731	33,653	33653.12
TOTAL Conduits	1.00	EA	72,602	12,705	21,327	106,634	106634.05
08.02.03.02 Weir Inlet	1.00	EA	72,602	12,705	21,327	106,634	106634.05

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
08.02.03.02.01 Weir Inlet							
08.02.03.02.01.01 Base Slab	1.00	EA	28,244	4,943	8,297	41,484	41483.71
08.02.03.02.01.02 Weir	1.00	EA	19,596	3,429	5,756	28,781	28781.25
08.02.03.02.01.03 Transition To Conduit	1.00	EA	3,999	693	1,163	5,815	5814.70
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
08.02.03.04 Stilling Basin							
08.02.03.04.01 Stilling Basin Parabolic							
08.02.03.04.01.01 Walls	1.00	EA	32,911	5,759	9,668	48,338	48338.00
08.02.03.04.01.02 Base Slab	1.00	EA	15,188	2,658	4,461	22,307	22306.95
TOTAL Stilling Basin Parabolic	1.00	EA	48,099	8,417	14,129	70,645	70644.95
08.02.03.04.02 Stilling Hydraulic Jump Basin							
08.02.03.04.02.01 Walls	1.00	EA	26,999	4,725	7,931	39,654	39654.29
08.02.03.04.02.02 Base Slab	1.00	EA	14,018	2,453	4,118	20,589	20589.43
08.02.03.04.02.03 Shear Key	1.00	EA	697	122	205	1,024	1024.29
08.02.03.04.02.04 Chute Blocks	1.00	EA	147	26	43	217	216.62
08.02.03.04.02.05 Baffle Blocks	1.00	EA	480	84	141	706	705.61
08.02.03.04.02.06 End Sill	1.00	EA	350	61	103	514	514.14
08.02.03.04.02.07 Bridge Slab	1.00	EA	4,361	763	1,281	6,405	6405.29
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	47,053	8,234	13,822	69,110	69109.68
TOTAL Stilling Basin	1.00	EA	95,152	16,652	27,951	139,755	139754.63
TOTAL Concrete	1.00	EA	219,553	38,422	64,494	322,468	322468.33
08.02.06 Rip Rap	1.00	EA	39,172	6,855	11,507	57,534	57533.99
08.02.90 Miscellaneous	1.00	EA	10,161	1,778	2,985	14,923	14923.49
TOTAL Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7							
09.01.03 Concrete							

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EQUIP ID: C43RES

Crew ID: NAT01A

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGEN	TOTAL COST	UNIT COST
09.01.03.01 Slab On Grade							
09.01.03.01.01 Base Slab	1.00	EA	72,446	12,678	21,281	106,405	106405.32
TOTAL Slab On Grade	1.00	EA	72,446	12,678	21,281	106,405	106405.32
09.01.03.03 Walls	1.00	EA	108,690	19,021	31,928	159,639	159638.82
09.01.03.07 Elevated Slabs							
09.01.03.07.01 Elevated Slab	1.00	EA	65,174	11,405	19,145	95,724	95724.29
TOTAL Elevated Slabs	1.00	EA	65,174	11,405	19,145	95,724	95724.29
09.01.03.08 Beams							
09.01.03.08.01 Needle Beams	1.00	EA	2,259	395	664	3,318	3317.67
TOTAL Beams	1.00	EA	2,259	395	664	3,318	3317.67
TOTAL Concrete	1.00	EA	248,569	43,500	73,017	365,086	365086.10
09.01.04 Erosion Control System							
09.01.05 Gates	1.00	JB	107,119	18,746	31,466	157,331	157331.28
09.01.06 Stop Logs	1.00	EA	170,842	29,897	50,185	250,924	250923.87
09.01.07 Rip Rap	1.00	EA	76,109	13,319	22,357	111,785	111785.15
09.01.11 Electrical	1.00	EA	46,811	8,192	13,751	68,754	68753.80
09.01.15 Equipment Building	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.01.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S7	1.00	EA	257,693	45,096	75,697	378,486	378486.42
09.02 Gate S9	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
09.02.03 Concrete							
09.02.03.01 Slab On Grade							
09.02.03.01.01 Base Slab	1.00	EA	30,191	5,283	8,869	44,343	44342.52
TOTAL Slab On Grade	1.00	EA	30,191	5,283	8,869	44,343	44342.52
09.02.03.03 Walls	1.00	EA	43,054	7,535	12,647	63,236	63236.27
09.02.03.07 Elevated Slabs							
09.02.03.07.01 Elevated Slab	1.00	EA	17,095	2,992	5,022	25,108	25108.34
TOTAL Elevated Slabs	1.00	EA	17,095	2,992	5,022	25,108	25108.34

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGEN	TOTAL COST	UNIT COST
09.02.03.08 Beams							
09.02.03.08.01 Needle Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Concrete	1.00	EA	91,974	16,095	27,017	135,086	135086.43
09.02.04 Erosion Control System							
09.02.05 Gates	1.00	JB	27,310	4,779	8,022	40,111	40111.27
09.02.06 Stop Logs	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.02.07 Rip Rap	1.00	EA	30,987	5,423	9,103	45,513	45512.53
09.02.11 Electrical	1.00	EA	24,827	4,345	7,293	36,464	36464.40
09.02.15 Equipment Building	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.02.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S9	1.00	EA	181,530	31,768	53,324	266,622	266621.53
09.03 Gate S14			837,412	146,547	245,990	1,229,948	1229948
09.03.03 Concrete							
09.03.03.01 Slab On Grade							
09.03.03.01.01 Base Slab	1.00	EA	24,258	4,245	7,126	35,628	35628.27
TOTAL Slab On Grade	1.00	EA	24,258	4,245	7,126	35,628	35628.27
09.03.03.03 Walls	1.00	EA	43,019	7,528	12,637	63,184	63183.71
09.03.03.07 Elevated Slabs							
09.03.03.07.01 Elevated Slab	1.00	EA	8,565	1,499	2,516	12,580	12580.09
TOTAL Elevated Slabs	1.00	EA	8,565	1,499	2,516	12,580	12580.09
09.03.03.08 Beams							
09.03.03.08.01 Needle Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Concrete	1.00	EA	77,013	13,477	22,623	113,113	113112.72
09.03.04 Erosion Control System							
09.03.05 Gates	1.00	JB	12,603	2,205	3,702	18,510	18510.10
09.03.06 Stop Logs	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.03.07 Rip Rap	1.00	EA	38,055	6,660	11,179	55,893	55892.58
09.03.11 Electrical	1.00	EA	28,942	5,065	8,502	42,509	42509.21
	1.00	EA	343,176	60,056	100,808	504,039	504039.06

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
09.03.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.03.95 Controls	1.00	EA	351,432	61,501	103,233	516,166	516166.28
TOTAL Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
09.04 Gate S15							
09.04.03 Concrete							
09.04.03.01 Slab On Grade							
09.04.03.01.01 Base Slab	1.00	EA	39,070	6,837	11,477	57,384	57384.46
TOTAL Slab On Grade	1.00	EA	39,070	6,837	11,477	57,384	57384.46
09.04.03.03 Walls	1.00	EA	48,568	8,499	14,267	71,335	71334.98
09.04.03.07 Elevated Slabs							
09.04.03.07.01 Elevated Slab	1.00	EA	19,023	3,329	5,588	27,939	27939.42
TOTAL Elevated Slabs	1.00	EA	19,023	3,329	5,588	27,939	27939.42
09.04.03.08 Beams							
09.04.03.08.01 Needle Beams	1.00	EA	2,352	412	691	3,455	3454.75
TOTAL Beams	1.00	EA	2,352	412	691	3,455	3454.75
TOTAL Concrete	1.00	EA	109,014	19,077	32,023	160,114	160113.61
09.04.04 Erosion Control System							
09.04.05 Gates	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.04.06 Stop Logs	1.00	EA	143,081	25,039	42,030	210,150	210150.34
09.04.07 Rip Rap	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.04.11 Electrical	1.00	EA	69,926	12,237	20,541	102,704	102704.46
09.04.15 Equipment Building	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.04.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S15	1.00	EA	386,585	67,652	113,559	567,796	567796.23
09.05 Gate S16							
09.05.03 Concrete							
09.05.03.01 Slab On Grade	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
09.05.03.01.01 Base Slab	1.00	EA	16,641	2,912	4,888	24,441	24441.17
TOTAL Slab On Grade	1.00	EA	16,641	2,912	4,888	24,441	24441.17
09.05.03.03 Walls	1.00	EA	23,107	4,044	6,788	33,938	33937.94
09.05.03.07 Elevated Slabs							
09.05.03.07.01 Elevated Slab	1.00	EA	6,477	1,133	1,903	9,513	9512.85
TOTAL Elevated Slabs	1.00	EA	6,477	1,133	1,903	9,513	9512.85
TOTAL Concrete	1.00	EA	46,224	8,089	13,578	67,892	67891.96
09.05.04 Erosion Control System	1.00	JB	9,327	1,632	2,740	13,700	13699.55
09.05.06 Stop Logs	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.05.07 Rip Rap	1.00	EA	20,711	3,624	6,084	30,420	30419.59
TOTAL Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17							
09.06.03 Concrete							
09.06.03.01 Slab On Grade							
09.06.03.01.01 Base Slab	1.00	EA	21,076	3,688	6,191	30,956	30955.62
TOTAL Slab On Grade	1.00	EA	21,076	3,688	6,191	30,956	30955.62
09.06.03.03 Walls	1.00	EA	36,336	6,359	10,674	53,369	53368.83
09.06.03.07 Elevated Slabs							
09.06.03.07.01 Elevated Slab	1.00	EA	8,459	1,480	2,485	12,425	12424.54
TOTAL Elevated Slabs	1.00	EA	8,459	1,480	2,485	12,425	12424.54
09.06.03.08 Beams							
09.06.03.08.01 Needle Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Concrete	1.00	EA	67,505	11,813	19,830	99,148	99148.27
09.06.04 Erosion Control System	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.06.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.06.06 Stop Logs	1.00	EA	35,065	6,136	10,300	51,501	51501.02

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
09.06.07 Rip Rap	1.00	EA	17,430	3,050	5,120	25,601	25600.67
09.06.11 Electrical	1.00	EA	59,406	10,396	17,451	87,253	87253.19
09.06.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.06.95 Controls	1.00	EA	410,020	71,753	120,443	602,216	602216.20
TOTAL Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18							
09.07.03 Concrete							
09.07.03.01 Slab On Grade							
09.07.03.01.01 Base Slab	1.00	EA	22,010	3,852	6,465	32,327	32326.64
TOTAL Slab On Grade	1.00	EA	22,010	3,852	6,465	32,327	32326.64
09.07.03.03 Walls	1.00	EA	32,919	5,761	9,670	48,349	48349.15
09.07.03.07 Elevated Slabs							
09.07.03.07.01 Elevated Slab	1.00	EA	13,417	2,348	3,941	19,706	19706.15
TOTAL Elevated Slabs	1.00	EA	13,417	2,348	3,941	19,706	19706.15
09.07.03.08 Beams							
09.07.03.08.01 Needle Beams	1.00	EA	1,560	273	458	2,291	2291.11
TOTAL Beams	1.00	EA	1,560	273	458	2,291	2291.11
TOTAL Concrete	1.00	EA	69,905	12,233	20,535	102,673	102673.05
09.07.04 Erosion Control System							
09.07.05 Gates	1.00	JB	15,403	2,696	4,525	22,623	22623.09
09.07.06 Stop Logs	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.07.07 Rip Rap	1.00	EA	36,424	6,374	10,699	53,497	53497.18
09.07.11 Electrical	1.00	EA	17,188	3,008	5,049	25,245	25244.58
09.07.15 Equipment Building	1.00	EA	356,774	62,435	104,802	524,011	524011.37
09.07.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S18	1.00	EA	408,449	71,479	119,982	599,910	599910.18
09.08 Gate S19							
09.08.03 Concrete							
09.08.03.01 Slab On Grade	1.00	EA	1,028,163	179,929	302,023	1,510,115	1510115

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA



Wed 31 May 2006  
Eff. Date 05/31/06

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
09.08.03.01.01 Base Slab	1.00	EA	18,156	3,177	5,333	26,667	26667.01
TOTAL Slab On Grade	1.00	EA	18,156	3,177	5,333	26,667	26667.01
09.08.03.03 Walls	1.00	EA	26,283	4,600	7,721	38,603	38603.29
09.08.03.07 Elevated Slabs							
09.08.03.07.01 Elevated Slab	1.00	EA	8,663	1,516	2,545	12,723	12723.38
TOTAL Elevated Slabs	1.00	EA	8,663	1,516	2,545	12,723	12723.38
09.08.03.08 Beams							
09.08.03.08.01 Needle Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Concrete	1.00	EA	54,274	9,498	15,943	79,714	79714.32
09.08.04 Erosion Control System							
09.08.05 Gates	1.00	EA	12,600	2,205	3,701	18,507	18506.74
09.08.06 Stop Logs	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.08.07 Rip Rap	1.00	EA	27,725	4,852	8,144	40,722	40721.73
09.08.11 Electrical	1.00	EA	18,363	3,214	5,394	26,971	26970.71
09.08.15 Equipment Building	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.08.95 Controls	1.00	EA	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate SI9	1.00	EA	431,884	75,580	126,866	634,330	634330.14
TOTAL Gated Culvert	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
10 Sitework	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road							
10.20.01 Toe Road/Access Road Shell Rock	1.00	EA	1,899,512	332,415	557,982	2,789,908	2789908
10.20.02 Asphalt Paving	1.00	EA	636,853	111,449	187,076	935,378	935377.90
TOTAL Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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		QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
11 Site Electrical								
11.01	Power Line Relocation	1.00	JB	815,000	142,625	239,406	1,197,031	1197031
TOTAL Site Electrical		1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir		1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
ERROR REPORT

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal

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No errors detected...

\*\*\* END OF ERROR REPORT \*\*\*

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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No Detailed Estimate...

No Backup Reports...

\* \* \* END TABLE OF CONTENTS \* \* \*

TRASH HANDLING SYSTEM BRIDGE	LENGTH	WIDTH	HEIGHT	NUMBER	QUANTITY	TOTAL	UNIT
END BENT (CAST-IN-PLACE)							
CONCRETE							
BASE	22	2.67	3	2	352.44		
RAISED SIDES	0.96	2.67	0.5	4	5.13		CY
TOTAL						13	
FORMWORK							
SIDE FORMWORK FOR BASE	49.34		3	2	296.04		
SIDE FORMWORK FOR RAISED SIDES	7.26		0.5	4	14.52		SF
TOTAL FORMWORK						311	
REINFORCING		LB/FT					
6B1	21.5	1.502		6	193.76	194	LB
6B2	24.1	1.502		2	72.35	72	LB
5B1	21.5	1.043		4	89.70	90	LB
4B1	10.2	0.668		20	135.83	136	LB
4B2	7.8	0.668		6	31.40	31	
4B3	2.7	0.668		4	7.13	7	
4B4	2.0	0.668		35	46.76	47	
4B5	11.7	0.668		2	15.59	16	LB
4B6	5.0	0.668		2	6.68	7	LB
4B7	7.8	0.668		4	20.93	21	LB
4B8	2.5	0.668		6	10.02	10	LB
TOTAL REINFORCING						0.32	TON
REINFORCING FOR 8 BENTS						2.52	TON
FINISH	22	2.67		2	117.48	117	SF

INTERMEDIATE BENT (CAST-IN-PLACE)

CONCRETE									
BASE	22	2.67	2.5	6	881.10				
RAISED SIDES	0.96	2.67	0.5	12	15.38				
TOTAL						33			CY

FORMWORK

SIDE FORMWORK FOR BASE	49.34		2.5	6	740.10				
SIDE FORMWORK FOR RAISED SIDES	7.26		0.5	12	43.56				
TOTAL FORMWORK						784			SF

REINFORCING

TOTAL REINFORCING									
FINISH	22	2.67		6	352.44				SF

APPROACH SLABS (CAST-IN-PLACE)

CONCRETE									
APPROACH SLABS	30	20	1.5	2	1800.00				
TOTAL						67			CY

FORMWORK

SIDE FORMWORK FOR APPROACH SLABS	100		1.5	2	300.00				
TOTAL FORMWORK						300			SF

CALCULATED ABOVE

CALCULATED ABOVE

TRASH HANDLING SYSTEM BRIDGE.xls

REINFORCING

5A1	29.5	LB/FT	21	646.14	LB	646
5A2	26.6	1.043	1	27.73	LB	28
5A3	19.5	1.043	28	569.48	LB	569
5A4	19.5	1.043	37	752.52	LB	753
5A5	18.5	1.043	3	57.89		58
5A6	18.5	1.043	4	77.18		77
5A7	2.0	1.043	4	8.34		8
8A1	29.5	2.67	25	1969.13	LB	1969
8A2	26.6	2.67	2	141.95	LB	142

*2,125 TONS*

TOTAL REINFORCING  
 REINFORCING FOR 2 SLABS

2.13 TON  
 4.25 TON

FINISHING

2 SF

PRECAST CONCRETE PILING (18" SQUARE)

24 FT

PRECAST CONCRETE BRIDGE DECK

CONCRETE

DECK SLAB (1.5' THICKNESS)

TOTAL

233.51 SF  
 4000

CONCRETE GUARDRAIL

240 FT

STEEL GUARDRAIL

180 FT

PRECAST CONCRETE CONTROL BUILDING

(10'x10')  
 (8'x8')

1 EA

*EDGE CURB - 1410 LF  
 - 1417 FILING  
 R. IN 5/14/06  
 12-18-2006*

Siphon Break Structure.xls

SIPHON BREAK STRUCTURE	LENGTH	WIDTH	HEIGHT	NUMBER	STRUCTURES	QUANTITY	TOTAL	UNIT
<b>SIDE WALLS</b>								
<b>CONCRETE</b>								
Wingwalls	38	1.5	7.333	4	4	3343.85		
Side Wall 1	17	1.5	11	2	4	2244.00		
<b>TOTAL</b>							<b>207</b>	<b>CY</b>
<b>WALL FORMWORK</b>								
Wingwalls	38		7.333	8	4	4458.46		
Head Wall	21		2.5	4	4	840.00		
Side Walls	140		11	1	4	6160.00		
<b>TOTAL WALL FORMWORK</b>							<b>11458</b>	<b>SF</b>
<b>REINFORCING</b>								
<b>TOTAL REINFORCING</b>	5588		0.06	490		164282.73	<b>82</b>	<b>LB</b>
<b>FINISH</b>								
	76	1.5		4	4	1824.00	<b>1824</b>	<b>SF</b>
<b>BOTTOM SLAB</b>								
<b>CONCRETE</b>								
G RECTANGLE	96	18	3	1	4	20736.00		
R TRIANGLE	1	18	4	2	4	288.00		
B RECTANGLE	1	18	4	2	4	576.00		
<b>TOTAL</b>							<b>800</b>	<b>CY</b>
<b>FORMWORK</b>								
SIDE FORMWORK FOR G RECTANGLE	228		3	1	4	2736.00		
SIDE FORMWORK FOR R TRIANGLE	20		4	2	4	640.00		
<b>TOTAL FORMWORK</b>							<b>3376</b>	<b>SF</b>



REINFORCING	21600	0.06	490		635040.00	LB
TOTAL REINFORCING					318	TON
FINISHING	96	18	1	4	6912.00	SF
TOP SLAB						
CONCRETE						
TOP SLAB	17	18	1	4	1836.00	
TOTAL					68	CY
FORMWORK						
SIDE FORMWORK FOR CROSS SLAB	35	1.5	2	4	420.00	SF
TOTAL					420	
REINFORCING	1836	0.06	490		53978.40	LB
TOTAL REINFORCING					27	TON
FINISHING	17	18	1	4	1224.00	SF
GUARDRAIL	18		2	4	144.00	FT
6" PVC WATERSTOP	70		2	4	560.00	FT
1.5 FT DIA MANHOLE COVER AND 2 FT DIA FRAME				4	4	EA
PRECAST CONCRETE MANHOLE RISER				4	4	EA

# C43 PS-1 QUANTITIES

ITEM #	DESCRIPTION	QUANTITY	UNIT
1	CHANNEL EXCAVATION	236,651	CY
2	STA EXCAVATION		
A	STORM WATER RETENTION POND EXCAVATION	3,779	CY
3	SHEET PILE RETAINING WALL		
A	PZ 32 SHEET PILE	104,840	SF
B	CONCRETE CAP	299	CY
C	CONCRETE CAP REINFORCING STEEL	7	TN
D	HANDRAILING	1,339	LF
E	# 14 THREADED ROD	22	TN
F	C 12 X 25 WALE	33	TN
G	ANCHOR WALL CONCRETE	744	CY
H	ANCHOR WALL STEEL REINFORCEMENT	16	TN
4	EARTH WORK FINAL GRADING	\$15,000.00	LS
5	PAVEMENT		
A	STABILIZATION	92,167	SF
B	8" SHELL ROCK BASE	10,241	SY
C	3" ASPHALT STRUCTURAL COURSE	2,287	CY
D	1" ASPHALT FRICTION COURSE	1,584	TN
		507	TN
6	WHEEL STOPS	10	EA

# C43 PS-1 QUANTITIES

7	PAVEMENT MARKINGS		\$1,000	LS
8	SEPTIC TANK - 1000 GAL		1	EA
9	DRAIN FIELD		1,000	SF
10	STORM SEWER DITCH BOTTOM INLETS (TYPE C & S)			
	TYPE S	2500	2	EA
	TYPE C		10	EA
11	STORM SEWER PIPES			
	15" RCP		139	LF
	14" X 23" RCP		272	LF
	18" RCP		296	LF
12	CONCRETE PAVED DITCH		85	CY

CHANNEL EXCAVATION

(+/-) CHANGE IN ELEVATION (FT)	AREA (FT)	LENGTH (FT)	VOLUME (CY)
32	5664	450	91974
29	5133		
		TOTAL VOLUME	91974

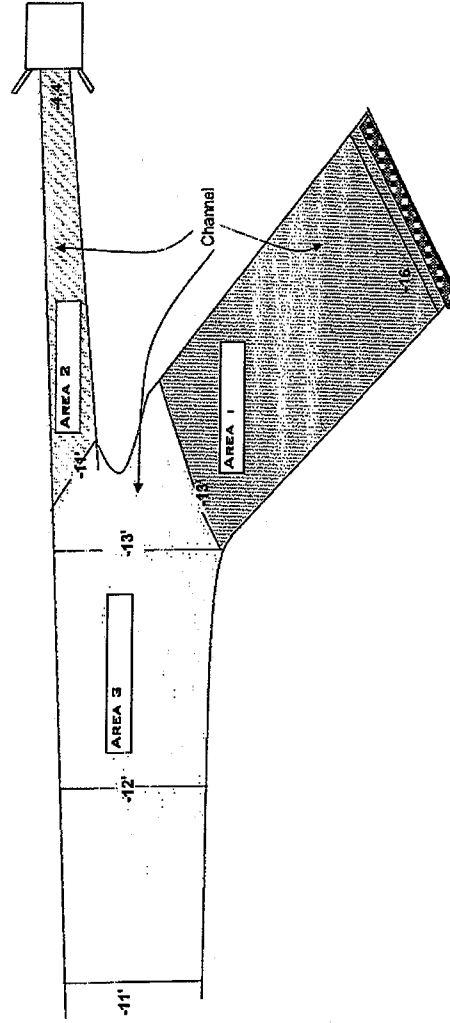
AREA 3			
(+/-) CHANGE IN ELEVATION (FT)	AREA (FT)	LENGTH (FT)	VOLUME (CY)
29	6960	220	60296
28	7840	220	61091
27	7155	220	
		TOTAL VOLUME	121387

TOTAL AREA VOLUME

236,851 CY

PROPOSED GROUND ELEVATION +16.0'

AREA 2			
(+/-) CHANGE IN ELEVATION (FT)	AREA (SF)	LENGTH (FT)	VOLUME (CY)
20.4	1734	220	23289
27	3982.5		
		TOTAL VOLUME	23289



# Retaining Wall Quantities

## STORM WATER RETENTION POND EXCAVATION

POND	TOP AREA (SF)	BOTTOM AREA (SF)	AVG. AREA (SF)	DEPTH (FT)	VOLUME (CY)
SW	6,748	5,445	6,096	2	452
NW	8,998	7,402	8,144	2	603
NE	38,474	35,074	36,774	2	2,724
TOTAL VOLUME					3,779

## PZ 3.2 SHEET PILE

### NORTH WALL

Sheet Pile				
LENGTH (FT)	HEIGHT (FT)	AREA (SF)	AREA (SF)	AREA (SF)
627	88.4	54,181		50,486

### SOUTH WALL

Sheet Pile				
LENGTH (FT)	HEIGHT (FT)	AREA (SF)	AREA (SF)	AREA (SF)
712	77.3	55,038		54,354

### CONCRETE CAP

LENGTH (FT)	AREA (SF)	VOLUME (CY)
1,291	6,25	299

### HAND RAILING

LENGTH (FT)
1,339

TOTAL AREA (SF)	TOTAL AREA (SF)
109,219	104,840

### REINFORCING STEEL FOR CONCRETE CAP

WALL LENGTH (FT)	BAR NUMBER	WT OF BAR (LB/FT)	# BAR / LF	WT OF BARS / LF (LB)	TOTAL WT (TN)
1,291	4	0.668	1	0.668	0.4
1,291	6	0.668	1	0.668	0.4
1,291	6	1.502	6	9.012	5.8
TOTAL WT					6.7

### # 14 THREADED ROD

WALL	WALL LENGTH (LF)	# OF RODS AT 10' O.C. (EA)	43 LF / ROD	ROD WT (LB / LF)	TOTAL WEIGHT (TN)
NORTH	627	64	2739	7.65	10.5
SOUTH	712	72	3105	7.65	12

### C 12 X 25 WALE

WALL	WALL LENGTH (LF)	WALE WT (LB / LF)	TOTAL WEIGHT (TN)
NORTH	627	50	15.7
SOUTH	712	50	18

### ANCHOR WALL CONCRETE

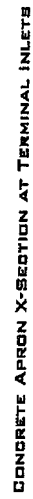
WALL	WALL LENGTH (LF)	WALL AREA / LF (SF)	TOTAL VOLUME CY
NORTH	627	15	348
SOUTH	712	15	396

### ANCHOR WALL STEEL REINFORCEMENT

WALL	WALL LENGTH (LF)	# 4 REBAR WT (LB/LF)	# OF BARS / LF	WT (LB/LF)	TOTAL WT (TN)
NORTH	627	1.5	16	24.0	7.5
SOUTH	712	1.5	16	24.0	8.5

SECTION AREA =	2	SF
DITCH LENGTH =	1083	LF

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5/24/2006

# STONE QUANTITIES

Structure	Location	Area (SF)	Factor	Final Area (SF)	Vol <sub>RR</sub> (CY)	Vol <sub>B-St</sub> (CY)
S-1	North of Structure	10,200	N/A	10,200	567	283
S-3	West of Structure	2,100	N/A	4,350	242	121
	East of Structure	2,250				
S-7	North of Structure	7,171	1.6	11,473	637	319
	South of Structure					
S-8	North of Structure	10,200	N/A	10,200	567	283
S-9	North of Structure	1,672	1.6	6,088	338	169
	South of Structure	2,133	1.6			
S-10	West of Structure	3,250	NA	6,822	379	190
	East of Structure	3,573	NA			
S-11	West of Structure	5,325	N/A	10,974	610	305
	East of Structure	5,648	N/A			
S-14	West of Structure	1,974	1.6	7,099	394	197
	East of Structure	2,463	1.6			
S-15	West of Structure	7,222	1.6	17,134	952	476
	East of Structure	3,487	1.6			
S-16	West of Structure	1,585	1.6	5,068	282	141
	East of Structure	1,583	1.6			
S-17	West of Structure	1,233	1.6	4,272	237	119
	East of Structure	1,437	1.6			
S-18	North of Structure	1,300	1.6	4,211	234	117
	South of Structure	1,331	1.6			
S-19	West of Structure	1,128	1.6	4,500	250	125
	East of Structure	1,684	1.6			
CS-1	North of Structure	12,500	N/A	12,500	694	347
CS-2	West of Structure	9,600	N/A	9,600	533	267
Total Volume (CY)					6916	3458
Filter Fabric (SF)						
124,491						
Tonage (Tn/CY)					9057	4528
20% for Vv					8299	4150



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05-17-06

STRUCTURE C43PS1  
C43 WEST STORAGE RESERVOIR

PROJECT NO 17300 09 02  
SOUTH FLORIDA WATER  
MANAGEMENT DISTRICT

STRUCTURES CONTROL & MONITORING SITE  
PUMP STATION C43S1-19

CONTROLS & INSTRUMENTS

\* 16 VHF DATA RADIOS: 1 FOR EACH STRUCTURE

STRUCTURE C43S1

SERVICE GATE IO POINTS

UPPER LEVEL GATE " "

MIDDLE LEVEL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

DOWNSTREAM SAMPLER " "

EMERGENCY GENERATOR " "

\* TELEMETRY TO/FROM CATED STRUCTURE

STRUCTURE C43S3

DEWATERING GATE IO POINTS

LEVEL CONTROL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

EMERGENCY GENERATOR " "

STRUCTURE C43S7

DEWATERING GATE IO POINTS

LEVEL CONTROL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

EMERGENCY GENERATOR " "

STRUCTURE C43S8

DEWATERING GATE IO POINTS

UPPER LEVEL GATE " "

MIDDLE LEVEL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

DOWNSTREAM SAMPLER " "

EMERGENCY GENERATOR " "

STRUCTURE C43S9

DEWATERING GATE IO POINTS

LEVEL CONTROL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

EMERGENCY GENERATOR " "

STRUCTURE C43S10

DEWATERING GATE IO POINTS

LEVEL CONTROL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

EMERGENCY GENERATOR " "

STRUCTURE C43S11

DEWATERING GATE IO POINTS

LEVEL CONTROL GATE " "

UPSTREAM DOWNSTREAM LEVEL " "

DOWNSTREAM SAMPLER " "

EMERGENCY GENERATOR " "

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05-17-06

STRUCTURE C43PS1  
C43 WEST STORAGE RESERVOIR

PROJECT NO 17300 09.02  
SOUTH FLORIDA WATER  
MANAGEMENT DISTRICT

STRUCTURE C43S12			NUMBER	MATERIAL	LABOR
** 16,000 LF	SERVICE GATE	IO POINTS	3	800	200
	UPSTREAM DOWNSTREAM LEVEL	" "	2	800	200
	EMERGENCY GENERATOR	" "	1	800	200
			1	500	100
			1	1,500	300
STRUCTURE C43S14			NUMBER		
	LEVEL CONTROL GATE	IO POINTS	1	800	200
** 29,000 LF	UPSTREAM DOWNSTREAM LEVEL	" "	2	800	200
	DOWNSTREAM SAMPLER	" "	1	800	200
	EMERGENCY GENERATOR	" "	1	800	200
			1	500	100
			1	1,500	300
STRUCTURE C43S15			NUMBER		
** 32,000 LF	DEWATERING GATE	IO POINTS	1	800	200
	LEVEL CONTROL GATE	" "	1	800	200
	UPSTREAM DOWNSTREAM LEVEL	" "	2	800	200
	EMERGENCY GENERATOR	" "	1	800	200
			1	500	100
			1	1,500	300
STRUCTURE C43S17			NUMBER		
** 34,000 LF	DEWATERING GATE	IO POINTS	1	800	200
	LEVEL CONTROL GATE	" "	1	800	200
	UPSTREAM DOWNSTREAM LEVEL	" "	2	800	200
	EMERGENCY GENERATOR	" "	1	800	200
			1	500	100
			1	1,500	300
STRUCTURE C43S18			NUMBER		
** 34,000 LF	DEWATERING GATE	IO POINTS	1	800	200
	LEVEL CONTROL GATE	" "	1	800	200
	UPSTREAM LEVEL	" "	1	800	200
	EMERGENCY GENERATOR	" "	1	800	200
			1	500	100
			1	1,500	300
STRUCTURE C43S19			NUMBER		
** 36,000 LF	DEWATERING GATE	IO POINTS	1	800	800
	UPSTREAM DOWNSTREAM LEVEL	" "	2	800	800
	EMERGENCY GENERATOR	" "	1	800	300
			1	500	100
			1	1,500	300
STRUCTURES C43CL1, C43CL2, & C43CL3			NUMBER		
** 31,000 LF	CELL LEVEL	IO POINTS	3	800	200
	SP	" "	3	800	200
			3	500	100
			3	1,500	300

PROJECT NO 17300 09 02  
SOUTH FLORIDA WATER  
MANAGEMENT DISTRICT

(CREW  
GEGEGEC)

	MATERIAL	LABOR	(GELEGELECI)
NUMBER	50,000	10,000	
1 LS	8,000	1,600	
8	500	100	
8	500	100	
6	10,000	2,000	
1	5,000	1,000	
1	5,000	1,000	
1	500	100	
1	1,500	300	
1	7,500	1,500	
1	7,500	1,500	
2	25,000	5,000	
2	15,000	3,000	
1 LS	3,500	700	
NUMBER	25,000	5,000	
1	2,000	400	
2	500	100	
1	2,000	400	
1	1,800	200	
1	1,500	300	
1	2,000	400	
1	1,500	300	
1	5,000	1,000	
1	3,000	600	
2 LS	500	100	
NUMBER (X2)	10,000	2,000	

NUMBER	
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1	REMOTE I/O PANEL
1	MAIN CONTROL PANEL

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05-17-06

STRUCTURE C43PS1  
C43 WEST STORAGE RESERVOIR

PROJECT NO 17300 09 02  
SOUTH FLORIDA WATER  
MANAGEMENT DISTRICT

**PUMP STATION C43PS4**  
CONTROLS & INSTRUMENTS

MATERIAL LABOR

PLC ~~SCADA~~ SYSTEM NETWORK  
PV1500+

MOTOROLA MOSCAD-L  
ETHERNET SWITCH

~~CONTROL~~ ~~COMPACT~~ LOGIX PLC  
UHF DATARADIO

MOTOROLA MCP IP GATEWAY  
TELEMETRY TO/FROM PUMP STATION

12 & 24 VDC  
POWER SUPPLY

PRIMARY CONSOLES (x2)

REPORT PRINTER

SCADA 1 MONITOR

PHONE CUBICLE

ALARM PRINTER

SCADA 2 MONITOR

PLANT RADIO

SECURITY CCTV/VCR SERVER MULTIPLEXER

VCR

LCD MONITOR

CCTV SECURITY EQUIPMENT CABINET

INTERNET VIDEO SERVER

MONOCHROME DUPLEX MULTIPLEXER

CO-AXIAL CABLE SIGNAL SPLITTER

UPS

120V QUAD RECEPTACLES

COMMUNICATION RACK

ETHERNET SWITCH

RADION TRANSCEIVERS

PROTOCOL CONVERTER

MOTOROLA MOSCRO-L RTU

POWER STRIP

DC-VOLTAGE POWER SUPPLIES

UPS

REMOTE I/O PANEL

MAIN CONTROL PANEL

NUMBER

1	8,000	1,600
1	5,000	1,000
1	500	100
1	10,000	2,000
1	1,500	300
1	3,000	600
1	500	100
1	1,500	300

NUMBER(x2)

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Walls	Height	Length	Total Length	Area Unit
Exterior CMU 8"	20.00	40.00	18.00	116.00 2320 SF
Total				116.00 2320 SF
Stucco/Paint				0.00 0 SF
1st Floor Total				0.00 0.00 SF
Interior CMU wall				
1st Floor	8.00	33.32	14.84	66.49 532 SF
2nd Floor	8.00	14.66	14.00	28.66 229 SF
Total				28.66 229 SF
First Floor Slab	18.00	36.00	0.50	13 CY
Control Building Roof Slab	18.00	36.00	0.50	13 CY
Intake Fan Exhaust Roof Slab	10.00	74.00	0.50	29 CY
Flooring				Area
1st Floor				
Sealed Concrete	18.00	16.00		288 SF
VCT	8.00	6.83		55 SF
VCT	8.83	11.10		98 SF
Ceramic Tile	Area of first floor - Sealed Concrete - VCT			207 SF
2nd Floor				
Sealed Concrete				0 SF
VCT	Area of second floor - Ceramic Tile			597 SF
Ceramic Tile	7.33	7.00		51 SF
TOTALS				
Sealed Concrete				288 SF
VCT				651 SF
Ceramic Tile				149 SF

03396 - 2000

FLOR SLAB  
2776  
1265  
K 2776  
K 2776  
K 2776

2320 - 2320

55

Computed by Tony Renking  
5/24/2006

Control Room  
ARCHITECTURAL

PROJECT No. 17300.09.02  
C43

Glazing (Type 3) Light Grey  
Glazing (Type 3) Light Grey

1.60	0.0 SF
1.6	0.0 SF
	<u>0 SF</u>

Windows	Width	Length	Quantity	Area
Aluminum Windows				
	12.00	7.00	2.00	168 SF
	4.00	7.00	1.00	28 SF
	6.00	7.00	3.00	126 SF
Total				<u>322 SF</u>

Roofing	Width	Length	# of Floors	Area
Roofing Area	18.00	36.00		<del>648 SF</del>
				<del>0 SF</del>
				<del>0 SF</del>
				<del>0 SF</del>
				<u><del>648 SF</del></u>

Spiral Stair Case 10' H (3'-6" Dia)  
Pipe Guard Rail (Roof Perimeter)  
Pipe Guard Rail (Stairs)  
Metal Stairs

1	EA
108	LF
16	LF
16	LF

124

Computed by Tony Reinking  
5/24/2006

Control Room  
ARCHITECTURAL

PROJECT No. 17300.09.02  
C43

Wall Finishes	Area				
1st Floor					
Interior Ceramic Wall Tile	237 SF	29.68	8.00		
Interior Ceramic Wall Tile	229 SF	28.66	8.00		
Painted CMU	1498 SF	187.3	8.00		
2nd Floor					
Interior Ceramic Wall Tile	213 SF	26.64	8.00		
Painted CMU	1085 SF	135.66	8.00		
TOTALS					
Interior Ceramic Wall Tile	680 SF				
Painted CMU	2584 SF				
Ceiling Finish	Area				
1st Floor					
Painted Concrete Ceiling	288 SF	16.00	18.00		
Painted Concrete Ceiling	31 SF	4.17	7.33		
2'x2' Suspended Acoustical Ceiling	329 SF				
6" Unfaced Batt Insul.	329 M2				
2nd Floor					
2'x2' Suspended Acoustical Ceiling	648 SF	18.00	36.00		
6" Unfaced Batt Insul.	648 SF	18.00	36.00		
Int. Doors	QTY		Width		
Roll Up Door	1 EA				
Single Door	9 EA				
Single Door Frame	7 EA				
Double Door Frame	1 EA				
Hinges	13.5 EA				
Lockset	9 EA				
Closure	9 EA				
Painting	9 EA				
Glazing (Type 1) Tempered	0.0 SF		1.60		
Glazing (Type 2) Wired	0.0 SF		1.60		

08/14/09

Computed by Tony Reinking  
5/24/2006

Main Pump Station  
ARCHITECTURAL

PROJECT No. 17300.09.02  
C43

Ext. Wall Finish	Height	Length	Total Length	Area	Unit
Painted Pre-cast Conc. Wall panel					
Elev. 67.33 to Elev 25	42.33	252.00	252.00	10667	SF
Elev. 71.33 to Elev 25	46.33	252.00	252.00	11675	SF
Elev. 71.33 to Elev 25	44.33	84.00	168.00	7447	SF
Total				29,790	SF
Roof Slab	252.00	84.00	0.50	412	CY
Parapet Wall	2.75	672.00	1.50	108	CY
Flooring					
Operating Floor (Elev 25)					
Sealed Concrete	252.00	84.00		21168	SF
Sealed Concrete Duct	-18.00	36.00		-648	SF
Sealed Concrete Duct	-30.00	5.00		-150	SF
TOTALS				20,370	SF
Sealed Concrete					
Wall Finishes					
Operating Floor (Elev 25)					
Painted Precast Concrete	252.00	42.33	1.00	10667	SF
Painted Precast Concrete	252.00	46.33	1.00	11675	SF
Painted Precast Concrete	84.00	44.33	2.00	7447	SF
TOTALS				29,790	SF
Painted Precast Concrete					
Ceiling Finish					
Painted Exposed Concrete	252.00	84.00		21,168	SF



Computed by Tony Renking  
5/24/2006

Main Pump Station  
ARCHITECTURAL

PROJECT No. 17300.09.02  
C43

Ext. Doors	Width	QTY	
Roll Up Door (14' x 14')		1	EA
Roll Up Door (10' x 10')		2	EA
Single Door		9	EA
Single Door Frame		9	EA
Double Door Frame		0	EA
Hinges		14	EA
Lockset		9	EA
Closure		9	EA
Painting		9	EA
Glazing (Type 1) Tempered		0.0	SF
Glazing (Type 2) Wired		0.0	SF
Glazing (Type 3) Light Grey		0.0	SF
Glazing (Type 3) Light Grey		0.0	SF
		0	SF

Windows	Width	Length	Quantity	Area
Aluminum Windows				
			0	SF
			0	SF
			0	SF
			0	SF

Total				
Roofing				
Roofing Area	Width	Length		Area
Fully Adhered EPDM Roofing	252.00	84.00		21168
Scuppers				21,168
Downspout				7
12" X 6" Overflow Drain				296
				6
				EA
				LF
				EA

Computed by Tony Reinking  
5/24/2006

Main Pump Station  
ARCHITECTURAL

PROJECT No. 17300.09.02  
C43

Stairs (Elev 10 to Elev 25)	=15*1.6	24	LF
Stairs (Elev 21 to Elev 25) Truck bay	=4*1.6	6	LF
Stairs (Elev 10 to Elev 16)	=6*1.6*2	19	LF
Stairs (Elev 21 to Elev 25) Rside	=4*1.6*2	13	LF
Stairs (Elev 20 to Elev 25) Lside	=5*1.6	8	LF
Stairs (Elev 20 to Elev 25) Discharge	=5*1.6*3	24	LF
<b>Total Stairs</b>		<b>94</b>	<b>LF</b>
Pipe Guard Rail Penmitter			
Removable Guard Rail Penmitter	= (4*10)+(8+7+7)+(2*(5+30))	132	LF
Pipe Guard Rail (Stairs)	=30*16	46	LF
<b>Total Guard Rail</b>	= (Total Stair Leingh	<b>94</b>	<b>LF</b>
		<b>272</b>	<b>LF</b>
Ladder down to gallery Level		45	
Roof Access Ladder		42	
<b>Ladder Total</b>		<b>87</b>	<b>LF</b>
Handicap Lift (10' lift height)		1	EA

Concrete Ready Mix price

4000 PSI

Prepared BY: Tony Reinking

Concrete Budgetary Prices

Company	Contact	Price/ CY	Location
VSI Mobile Mix	Kevin	\$ 109 00	Fort Myers, FL
Central Concrete Supermix	Lesley	\$ 126 45	Fort Myers, FL
Florida Ready Mix	Rick	\$ 105 00	Fort Myers, FL
Summit Ready Mix		\$ 136 72	Fort Myers, FL
Krehling Industries	Dee	\$ 131 00	Immokalee, FL
Hare Lumber & Ready Mix		\$ 100 70	Clewiston, FL

Average

\$ 118.15

Jensen, Glenn

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**From:** Nathan\_Sederstrom@fpl.com  
**Sent:** Friday, May 26, 2006 9:45 AM  
**To:** Walker, Wes  
**Cc:** Bodziony, Todd; Dreyer, Daniel; Grounds, Dave; Jensen, Glenn; McVicker, LuAnn; Coughanour, Susan  
**Subject:** RE: C43 Utility Costs - FPL Removals, Relocations, and New Primary Service Extensions

- 1) Construction Manhours are based on what it normally takes to set and frame the poles, pull the wire, and hang the transformers and switches (or remove it in the case of the removal) Having the access road next to the new relocated poles will help keep those numbers accurate (accessible to machinery, versus setting poles by hand and having to climb them).
- 2) Yes, I added some additional dollars and manhours for miscellaneous work.
- 3) Yes, the extensions on the Southeast side are included in our estimate calculations.

Again, keep in mind that these are ballpark estimates - however, we did go to some length to ensure that we are pretty accurate Having the pole counts from your survey work definately helps to ensure better accuracy

Nathan

---

"Walker, Wes" |  
<WalkerWes@stanleygroup.com> |  
05/26/2006 10:22 |  
AM |

---

To: Nathan\_Sederstrom@fpl.com, "Jensen, Glenn" <JensenGlenn@stanleygroup.com> |  
cc: "Bodziony, Todd" <BodzionyTodd@stanleygroup.com>, "Dreyer, Daniel" |  
<DreyerDaniel@stanleygroup.com>, "Grounds, Dave" <GroundsDave@stanleygroup.com>, "McVicker, LuAnn" |  
<lmcvicke@sfwmd.gov>, "Coughanour, Susan" <scoughan@sfwmd.gov> |  
Subject: RE: C43 Utility Costs - FPL Removals, Relocations, and New Primary Service Extensions |

---

Nathan,

This is great Three clarifications:

- 1 It seems obvious, but just to clarify: Are we correct in understanding that the Construction Manhours include all necessary materials and equipment needed for the corresponding work?
  - 2 Do your numbers include a percentage adder for "Undeveloped Design Details, and other un-identified work?"
- One example is the relocation of a few poles at pump station PS-1 for the intake canal We don't want to

unnecessarily compound such allowances

3. Does this include something for the primary service extensions to the east and southeast of the reservoir that are not underground?

Thanks for the help,

Wesley C Walker, P E  
Principal Elec Engr  
Stanley Consultants, Muscatine, IA  
Fax 563 264-6658 Tel 563 264 6374  
walkerwes@stanleygroup.com

-----Original Message-----

From: Nathan\_Sederstrom@fpl.com [mailto:Nathan\_Sederstrom@fpl.com]

Sent: Friday, May 26, 2006 9:01 AM

To: Walker, Wes

Cc: Bodziony, Todd; Dreyer, Daniel; Grounds, Dave; Jensen, Glenn; McVicker, LuAnn; Coughanour, Susan

Subject: Re: C43 Utility Costs - FPL Removals, Relocations, and New Primary Service Extensions

Here is FPL's ballpark estimate for the removal, relocation and installation of new Distribution facilities associated to the C43 project

REMOVAL of existing poles and conductors within the C43 project area:

\$240,000 (1,500 Construction Manhours) Installation of RELOCATED POLES AND CONDUCTORS along the North boundary:

\$560,000 (2,100 Construction Manhours) Installation of UNDERGROUND PRIMARY and padmounted transformers:

\$ 15,000 ( 150 Construction Manhours)

Total ballpark estimate: \$815,000 (3,750 Construction Manhours)

I added the amount of construction manhours to illustrate the timeframe

I would plan on 200-300 CMH being completed per week - making the FPL construction timeframe around 3-4 months, as you plan in the total schedule

-----  
Nathan Sederstrom
Senior System Project
Manager
Florida Power & Light
2425 Thompson St, Ft
Myers
FMO/FM2, (239)
332-9154
Fax: (239) 332-9128
-----

|----->  
	"Walker, Wes"
	<WalkerWes@stanle
	ygroup com>
	05/25/2006 04:05
	PM
----->	

>-----  
-----|  
|  
|  
| To: "Jensen, Glenn" <JensenGlenn@stanleygroup com>  
|  
| cc: "Bodziony, Todd" <BodzionyTodd@stanleygroup com>,  
| "Dreyer, Daniel" |  
| <DreyerDaniel@stanleygroup.com>, Nathan\_Sederstrom@fpl.com,  
| "McVicker, LuAnn" <lmcvicke@sfwmd gov>, |  
| "Grounds, Dave" <GroundsDave@stanleygroup com>, "Coughanour,  
| Susan" <scoughan@sfwmd gov> |  
| Subject: C43 Utility Costs - FPL Removals, Relocations, and  
| New Primary Service Extensions (Coming!) |  
>-----  
-----|

Glenn,

Moments ago, Nathan shared that tomorrow we should receive some preliminary FPL estimates for the following from Overall Reservoir Site Electrical Plan:

- FPL Removals - 3ph along Header Canal (7.5 miles 3ph); 3ph misc taps (2.25 miles)

- FPL Relocations - along north side of reservoir (6 mi) and down east side to Header Canal (1 mile)

- New FPL Primary Service Extensions

Structures S-1, S-8: Extend 3ph overhead over canal one span, then underground for 200 ft to pad mount transformer. Load is still small, even with 16 each 3hp motors, so a small three phase padmount may not make sense. There could be 4 to 6 gates that might operate at the same time, but very infrequently. At the meeting I recall FPL to suggest pole mounted transformers at that point with underground secondary into control building.

Structure S-12: Extend 1ph overhead over canal one span; then underground for 4,300 ft

Structure S-3: Extend 1ph overhead from existing FPL line to south

- now shown at about 3,800 ft

Structure S-15: Extend 1ph overhead from S-3 north - now shown at about 2,600 ft

Pump Station PS-1: Extend 3ph Primary from existing 3-ph line along Townsend Canal into 500 kVA pad mount transformer next to building

- length now shown at 615'.

All other structures and PS-4 will be immediately adjacent to existing or relocated line.

Nathan indicated that his current working number is in the range of \$750k - \$850k

I will get that information to you as soon as I review.

Wes

**Jensen, Glenn**

---

**From:** Bodziony, Todd  
**Sent:** Friday, May 19, 2006 3:55 PM  
**To:** Jensen, Glenn; Walker, Wes  
**Subject:** Cost Estimate for electrical Structures

Glenn,

The following breakdown is a list of modifications to the S67 MCACES budget for electrical work based a conference call between Wes Walker and Todd Bodziony on 5/19/06

Attached under pdf is a copy of the S67 Mcaces estimate that includes our markup which holds for all of the structures unless otherwise noted below. All of the items shown in the electrical section under boat ramp and electrical work apply

S11:

Reduce the Control panel cost by 10K  
Add an item for RTU w\PLC qty 1 @ 5K  
Add an item "Hoist Starters and Remote Controls" qty 2 @5K  
Add an item "Actuator starter and remote controls" qty 2 @5K

S10: Same as S11 with the following changes  
Delete 1 hoist starter (qty 1 remaining)

S3: Same as S11 with the following changes  
Remove Controls and Panel unit  
Delete Hoist starters (qty 0 remaining)  
Replace RTU w\PLC with "RTU\MOSCAD" qty 1 @ 3K  
Increase Actuator Starter price to 7K each (qty 2)

S15, S9, and S7 are the same as S3

S18: Same as S3 except:

~~Remove the stilling well~~

S17: Shares the control building and generator with S18  
The only costs shown for S17 should be the following:  
Add 2 Actuator Starters priced @ 8K each  
Add 1 "Stilling well w/ remote controls" @ 15K

S19, S14:

Same as S3 except:  
Qty 1 Actuator Starter @7K

S1, S8: Start with S3 as Base  
Add 4 Actuator Starters @ 5K  
Add 12 Actuator Starters @6K

FOR INTAKE STRUCTURE

5/20/2006



Increase Generator size to 35KW and adjust price  
Increase ATS size to 225A capacity and adjust price  
Increase panel board size to 225A capacity and adjust price **42KTS**  
Add "High Head Stilling Well w/ remote controls" qty 1 @ 30K  
Change "Stilling Well w/ remote controls" to qty 1 @ 15K

S12: Start with S3 as Base  
Add 4 actuator Starters @5K **TOTAL OF 6**  
Add "High Head Stilling Well w/ remote controls" qty 2 @ 30K  
Remove "Stilling well w/ remote controls"

Good luck this weekend and give me a call on Monday if you have questions I think Wes may be in tomorrow for a few hours

**Todd Bodziony**  
**Electrical Engineer**  
**Stanley Consultants INC.**  
1601 Belvedere Road, Suite 400 East  
West Palm Beach, Florida 33406  
Phone: 561 712 2254  
Cell: 772 291 3195  
Fax: 561 689 3003  
Email: bodzionytodd@stanleygroup.com  
www.stanleygroup.com

Structure	Type of Gate	Material	Number of Gates	Width W	Height H	Opening Height H2	Seating Head Z	Unseating Head Z	Gate To Operator O	Lifting Mechanism
S1	Sluice	Cast Iron	2	5	6	28	28			Stem
S1	Sluice	Cast Iron	2	5	6			28		Stem
S1	Sluice	Cast Iron	2	8	6		28			Stem
S1	Slide	Stainless Steel	10	8	6			10-28		Stem
S3	Slide	Stainless Steel	1	10	10		10			Stem
S3	Weir	Stainless Steel	1	10	5	5	10			Stem
S7	Slide	Stainless Steel	1	10	10		11		7	Stem
S7	Weir	Stainless Steel	1	10	5	5	11		7	Stem
S8	Sluice	Cast Iron	2	5	6		25			Stem
S8	Sluice	Cast Iron	2	5	6			25		Stem
S8	Sluice	Cast Iron	2	8	6		25			Stem
S8	Slide	Stainless Steel	10	8	6			10-25		Stem
S9	Slide	Stainless Steel	1	6	6		7		6.5	Stem
S9	Weir	Stainless Steel	1	6	3	3	7		6.5	Stem
S10	Roller	Carbon Steel	1	14	8		10		13.5	Cable
S10	Weir	Stainless Steel	2	10	8	5	10		13	Stem
S11	Roller	Carbon Steel	2	14	8		8			Cable
S11	Weir	Stainless Steel	2	10	8	5	8			Stem
S12	Sluice	Cast Iron	3	5	6		25	25		Stem
S12	Sluice	Cast Iron	3	5	6		25	25		Stem
S14	Slide	Stainless Steel	1	10	6		9		9	Stem
S15	Slide	Stainless Steel	1	10	8		12		8	Stem
S15	Weir	Stainless Steel	1	10	4	4	12		8	Stem
S17	Slide	Stainless Steel	1	6	6		6		7.5	Stem
S17	Weir	Stainless Steel	1	6	3	3	6		7.5	Stem
S18	Slide	Stainless Steel	1	6	6		6		7	Stem
S18	Weir	Stainless Steel	1	6	3	3	6		7	Stem
S19	Slide	Stainless Steel	1	10	6		6		7.5	Stem

Reservoir Related Quantities			
No.	Description	Unit	Quantity
1	Silt Fence	LF	129,402
2	Stripping	CY	1,070,362
3	Drainage Blanket	CY	192,852
4	Toe Drain Collection System - Perforated Pipe	LF	99,130
5	Toe Drain Collection System - Solid Pipe	LF	7,540
6	Toe Drain Manholes	EA	200
7	Toe Drain End Treatment		
7a	Filter Fabric	SY	348
7b	Rip Rap	TN	174
8	Flat Plate Soil Cement (Perimeter Dam plus Separator Dam)	CY	715,414
9	Stair Step Soil Cement	CY	74,245
10	Slurry Wall	SF	4,485,936
11	Chimney Drain	CY	130,250
12	Grassing	AC	467
13	Access Roads	CY	
13a	8" Shell Rock	CY	115,795
13b	Asphalt Paved		
	Stabilization	SY	44,344
	Shell Rock Base (From on-site)	CY	7,873
	Asphalt Structural Course	TN	5,453
	Asphalt Friction Course	TN	1,689
14	Random Fill and Canal Excavation	CY	19,772,438
15	Select Fill	CY	41,000

## Silt Fence

Install Silty Fence around entire perimeter of project  
Consider repair and installations at other locations

Perimeter =	86,268 LF
Use additional 50%	43,134 LF
Total =	129,402 LF

5/19/2006 6:34 AM

Silt Fence

## Stripping

Prepare foundation for the reservoir embankment, bench and seepage canal

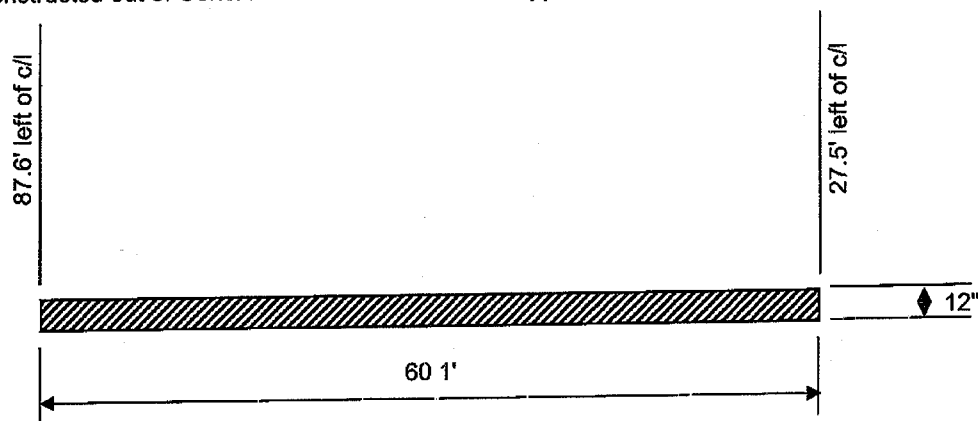
Strip the top 8" for the full width of the above items

Width=	500 FT
Depth=	0.67 FT
Length=	86,268 LF
Volume=	1,070,362 CY



## Drainage Blanket

Constructed out of Concrete Sand or C-33 Sand Applies around entire length of perimeter dam



area= 60 1 SF  
length= 86,639 LF  
volume= 192,852 CY



## Toe Drain

### 6" Perforated PVC Pipe (Seepage collection pipes)

Base Line North:	From Sta	To Sta	Length
From baseline stationing along pipe:	869+68	1385+98	51,630 LF

### 6" Perforated PVC Pipe (Seepage collection pipes)

Base Line South:	From Sta	To Sta	Length
From baseline stationing along pipe:	6+02	481+02	47,500 LF

Total Length of Perforated 6" PVC	99,130 LF
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## Toe Drain

6" Solid PVC Pipe (outfalls from MH)

### Base Line North:

No. Of MH's w/outfall	Length of Outfall Pipe at Each MH		Subtotal Length
28	130	LF	3,640 LF

### Base Line South

No. Of MH's w/outfall	Length of Outfall Pipe at Each MH		Total Length
30	130	LF	3,900 LF

Total Length of Solid 6" PVC			7,540 LF
------------------------------	--	--	----------

### **Toe Drain Manholes**

**Base Line North:** 85 EA

**Base Line South:** 115 EA

**Total** 200 EA

## Toe Drain Outfall End Treatment

Apply to ends of outfall pipe Line area with filter fabric Place rubble rip-rap (limerock) on fabric

Surface area at each application is 46 SF

Depth at each application is 1.5 FT.

Quantities per application:						
Description	Area		Depth		Volume	
Limerock Rip Rap	45.75	SF	1.5	FT	68.6	CF
Filter Fabric Liner	5	SY				
Use 25% void ratio						2.5 TN

No. of Applications=58

Totals			Plus 20% Contingency	
Limerock Rip Rap	144.78	TN	173.7	TN
Filter Fabric Liner	290	SY	348.0	SY

**Soil Cement**  
Flat Plate Soil Cement

**Baseline North**

Station	EL	Area (SF)	Length (LF)	Volume (CY)
1000+00.00	55.00	168		
			23344.12	145560
1233+44.12	55.00	168		
			90.00	556
1234+34.12	54.00	165		
			15216.46	93099
1386+50.58	54.00	165		
Subtotal				239215

**Baseline South**

Station	EL	Area (SF)	Length (LF)	Volume (CY)
2000+00.00	55	168		
			19079.54	118969
2190+79.54	55	168		
			90.00	556
2191+69.54	54	165		
			28449.62	174063
2476+19.16	54	165		
Subtotal				293587

Total Volume = 532,802 CY

## Soil Cement

### Stair Step

Area Each Step = 1 86 SF

#### Baseline North

Station	EL	Area (SF)	Length (LF)	Volume (CY)
1000+00.00	55.00	24		
			23,344	20,906
1233+44.12	55.00	24		
			90	78
1234+34.12	54.00	22		
			15,216	12,579
1386+50.58	54.00	22		
Subtotal				33,562

#### Baseline South

Station	EL	Area (SF)	Length (LF)	Volume (CY)
2000+00.00	55	24		
			19,080	17,087
2190+79.54	55	24		
			90	78
2191+69.54	54	22		
			28,450	23,518
2476+19.16	54	22		
Subtotal				40,683

Total Volume = 74,245 CY

## **Slurry Wall (Soil Bentonite Wall)**

Applied in the perimeter dam for its full length except at structures that are in the embankment

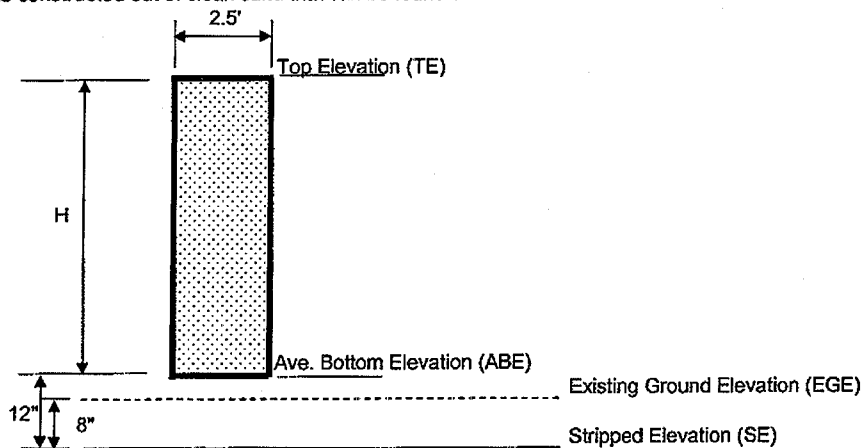
Quantity determined is the square foot area of the wall from a top elevation of 47.0 to a bottom elevation of -0.5

Height of Wall = 52 FT  
Length of Wall = 86,268 LF  
Area of Wall = 4,485,936 SF

## Chimney Drain

Chimney Drain sits on top of the blanket drain. It is constructed in 3' lifts as the dam embankment is constructed.

It is constructed out of clean sand that can be found on site.



Base Line North		EGE	SE	ABE	TE	H	A (SF)	L (ft)	Vol (CY)
From	To								
1090+00	1135+00	18.8	18.1	19.1	43.0	23.9	60	4,500	9,946
1135+00	1250+00	19.6	18.9	19.9	43.0	23.1	58	11,500	24,565
1250+00	1365+00	23.8	23.1	24.1	43.0	18.9	47	11,500	20,093
1365+00	1386+50	26.9	26.2	27.2	43.0	15.8	40	2,150	3,149

Base Line South		EGE	SE	ABE	TE	H	A (SF)	L (ft)	Vol (CY)
From	To								
2010+00	2020+00	22.2	21.5	22.5	43.0	20.5	51	1,000	1,895
2020+00	2045+00	23.2	22.5	23.5	43.0	19.5	49	2,500	4,507
2045+00	2140+00	24.2	23.5	24.5	43.0	18.5	46	9,500	16,247
2140+00	2220+00	25.2	24.5	25.5	43.0	17.5	44	8,000	12,941
2220+00	2330+00	26.2	25.5	26.5	43.0	16.5	41	11,000	16,775
2330+00	2405+00	27.2	26.5	27.5	43.0	15.5	39	7,500	10,743
2405+00	2460+00	28.2	27.5	28.5	43.0	14.5	36	5,500	7,369
2460+00	2476+19	29.2	28.5	29.5	43.0	13.5	34	1,619	2,019

Total Chimney Drain

130,250 CY



## Grassing

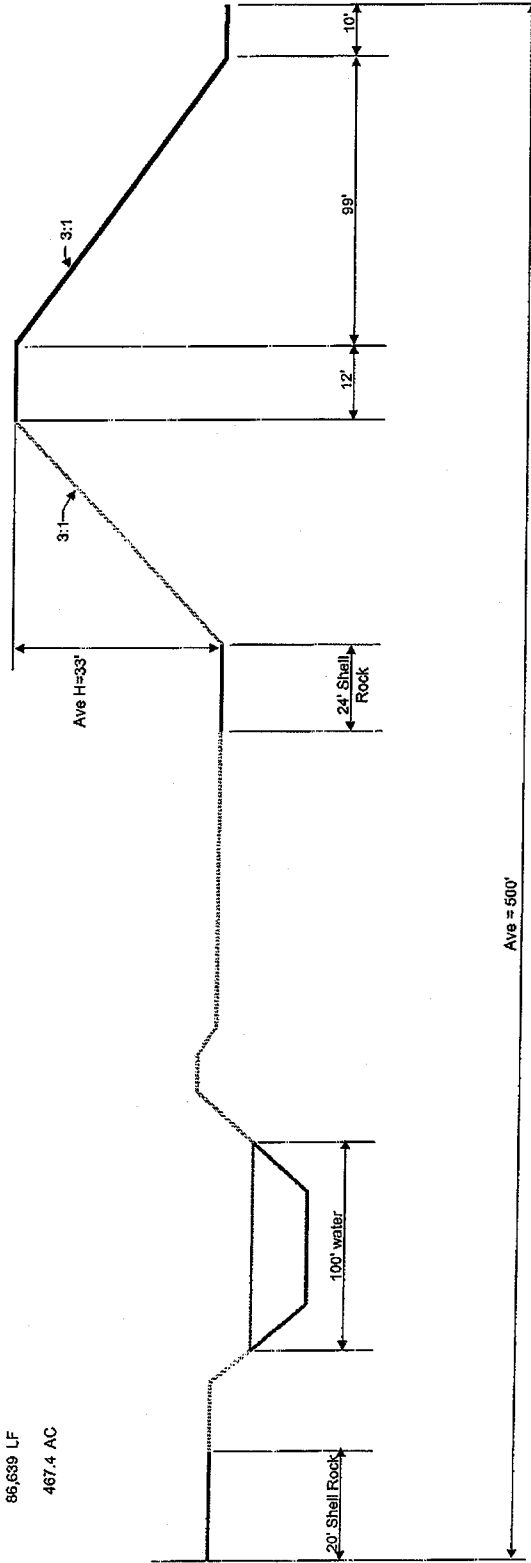
All areas disturbed that will not be paved, receive soil cement, shell rock or water will be grassed.

Determine width of reservoir construction corridor that will receive grassing

Remaining Width =  $500' - (20' + 100' + 24' + 12' + 99' + 10') = 235 \text{ FT}$

Length = 86,639 LF

Area = 467.4 AC



5/19/2008 6:34 AM

Grassing

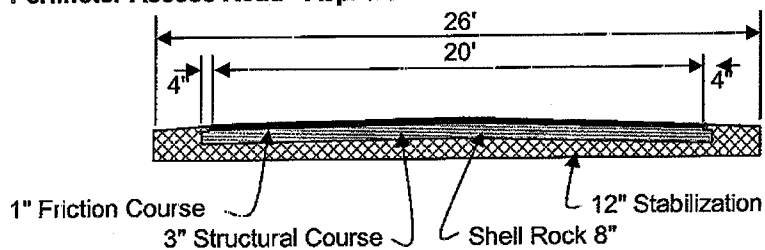
## Access Roads

### Perimeter Access Road - Shell Rock (Shell Rock from On-Site)

Length of Road= 128,907 LF  
 Width= 20 FT  
 Depth= 0.67 FT

Volume= 63,976 CY

### Perimeter Access Road - Asphalt Paved



Length of Road= 15,350

Stabilization=	44,344 SY	
Shell Rock Base=	7,873 CY	(Shell Rock from on-site)
Asphalt Structural Course=	5,453 TN	Use 110#/SY/inch of asphalt
Friction Course=	1,689 TN	Use 110#/SY/inch of asphalt

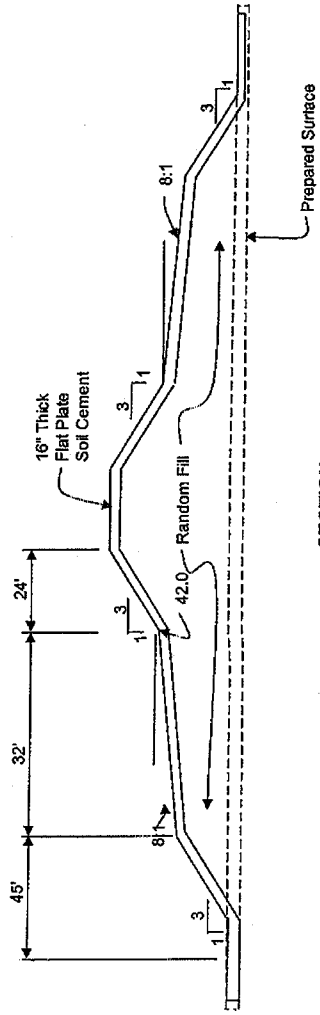
### Toe Road at Base of Perimeter Dam - Shell Rock (shell Rock from On-Site)

Length of Road= 87,010 LF  
 Width= 24 FT  
 Depth= 0.67 FT

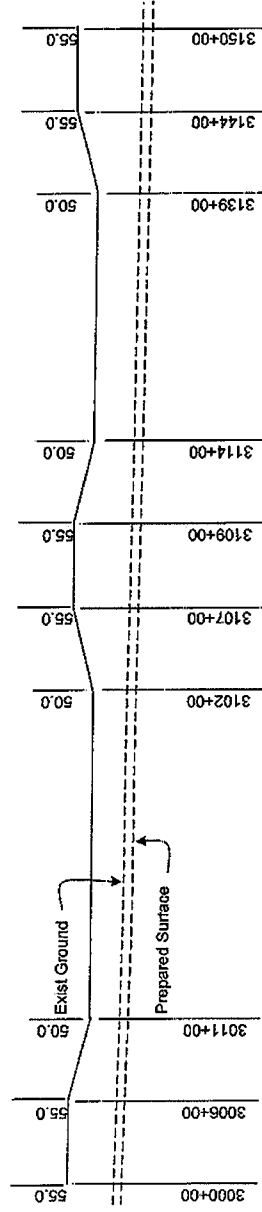
Volume= 51,819 CY

Total Shell Rock= 115,795 CY

# Separator Dam Construction Quantity Components

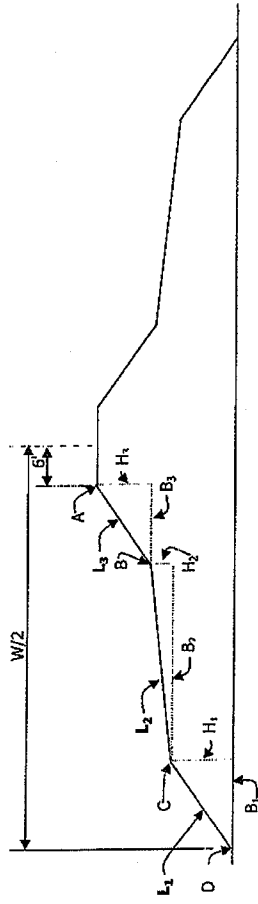


SECTION



PROFILE

# Flat Plate Soil Cement on The Separator Dam



STA	A	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	D	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	L	Cross/2	W/2	W
3000+00	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	25.0	13.0	39.0	41.1	6.0	132.5	264.9				
3006+00	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	25.0	13.0	39.0	41.1	6.0	132.5	264.9				
3011+00	50.0	42.0	8.0	24.0	25.3	38.0	4.0	32.0	32.2	25.0	13.0	39.0	41.1	6.0	116.7	233.3				
3102+00	50.0	42.0	8.0	24.0	25.3	38.0	4.0	32.0	32.2	24.0	14.0	42.0	44.3	6.0	119.8	239.6				
3107+00	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	23.0	15.0	45.0	47.4	6.0	136.8	277.6				
3109+00	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	22.8	15.2	45.6	48.1	6.0	139.4	278.9				
3114+00	50.0	42.0	8.0	24.0	25.3	38.0	4.0	32.0	32.2	22.0	16.0	48.0	50.6	6.0	126.1	252.3				
3139+00	50.0	42.0	8.0	24.0	25.3	38.0	4.0	32.0	32.2	22.0	16.0	48.0	50.6	6.0	126.1	252.3				
3144+00	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	22.0	16.0	48.0	50.6	6.0	142.0	283.9				
3150+06	55.0	42.0	13.0	39.0	41.1	38.0	4.0	32.0	32.2	21.8	16.2	48.6	51.2	6.0	142.6	285.2				

# Flat Plate Soil Cement on The Separator Dam

STA	W	Thickness	Area	Length	Volume
	LF	LF	SF	LF	CY
3000+00	271.2611	1.33	360.7772	600	8.064
3006+00	274.4233	1.33	364.983	500	6.292
3011+00	236.476	1.33	314.5131	9,100	106.711
3102+00	239.6383	1.33	318.7189	500	6.408
3107+00	280.7479	1.33	373.3947	200	2.766
3109+00	280.7479	1.33	373.3947	500	6.486
3114+00	245.9628	1.33	327.1306	2,500	30.485
3139+00	249.1251	1.33	331.3364	500	6.642
3144+00	290.2347	1.33	386.0122	606	8.758
3150+06	296.5593	1.33	394.4236		
Total Flat Plate Soil Cement					182.613

### Quantity Estimate for Reconstructing the Main Entrance Road

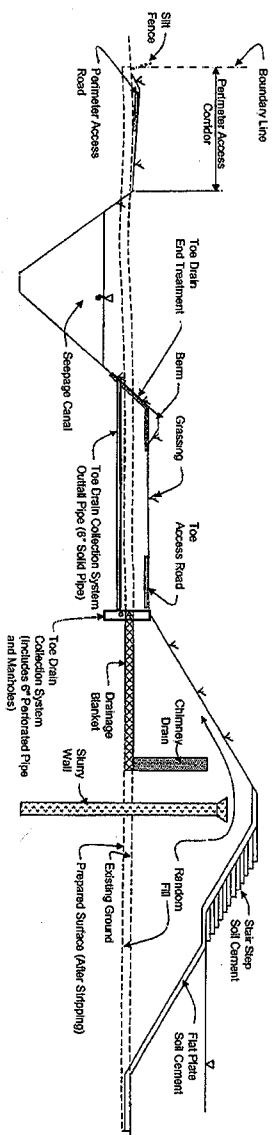
Item	Description	Length (ft) of Road	Width (ft)	Depth (ft)	Quantity	Unit	Cost
1	Traffic Control					LS	\$5,000
2	Erosion Controls						
2a	Silt Fence (Ea side of Road)	3,120			6,240.0	LF	
** 2b	Staked turbidity barrier						
	# 1 West Side		33		33.0	LF	
	# 1 East Side		33		33.0	LF	
	# 2 West Side		30		30.0	LF	
	# 2 East Side		28		28.0	LF	
	# 3 East Side		33		33.0	LF	
3	Clearing and Grubbing	3,120	60		4.3	AC	
4	Cross Drains						
	1-48" RCP w/Mitered End Sections				87.0	LF	
	2-48" RCP's w/Mitered End Sections				120.0	LF	
5	Stabilization	3,120	36		12,480.0	SY	
6	Shellrock Base (From on-site)	3,120	24.7	0.7	1,998.0	CY	
* 7	Asphalt						
	3" Structural Course	3,120	24	0.25	1,287.0	TN	
	1" Friction Course	3,120	24	0.08	411.8	TN	
8	Sod	3,120	8		2,773.3	SY	
9	Seed and Mulch	3,120	24		8,320.0	SY	
10	Striping					LS	\$2,000
11	Signing					LS	\$2,000

Length of Rd measured from SR 80 south edge to Perimeter Rd north edge

\* Used 110 # / SY/inch of asphalt pavement

\*\* Length + 10% added

# Perimeter Dam Construction Quantity Components





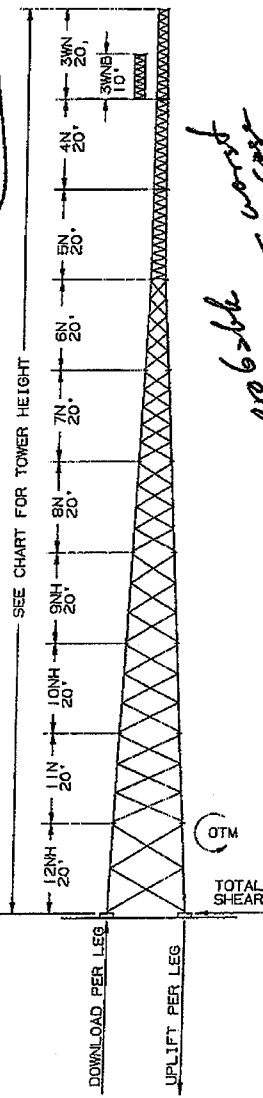


Typ 5/12/66

Antenna Tower  
C43PS1 Building

ANTENNA 120' TALL  
1 EA

15000W  
5000L



ELEVATION

TOWER ASSEMBLY NUMBER	TOWER SECTION HEIGHT (FEET)	PART NO.	BASE SECTION		ALLOWABLE PROJECTED AREA (SQ. FT.)			BASE REACTIONS			
			* A-BOLTS 12 REQ'D	FACE SPREAD	TOWER TOP ROUNDS OR FLATS	30 FEET BELOW TOP ROUNDS OR FLATS	DOWN-LOAD (POUNDS)	UPLIFT (POUNDS)	TOTAL SHEAR (POUNDS)		
SS040090	40	4N	5B4	2' 2"	16.7	10.6	20.0	12.0	20,800	19,800	1,700
SS050090	50	3WN	5B5	2' 6"	16.7	12.0	20.0	12.0	27,900	26,600	1,950
SS060090	60	3WN	5B5	2' 6"	14.2	8.9	17.5	10.5	33,700	32,400	1,930
SS070090	70	3WN	5B4X2AB	4' 6"	14.2	8.5	17.5	10.5	27,100	25,900	2,780
SS080090	80	3WN	5B4X2AB	4' 6"	12.5	7.5	15.8	9.5	31,300	29,600	2,820
SS090090	90	3WN	5B4X2AB	6' 6"	12.5	7.5	15.8	9.5	31,100	28,100	3,850
SS100090	100	3WN	5B4X2AB	6' 6"	10.0	6.0	13.3	8.0	33,100	30,900	3,850
SS110090	110	3WN	5B4X2AB	8' 6"	10.0	6.0	13.3	8.0	36,000	33,400	5,070
SS120090	120	3WN	5B4X2AB	8' 6"	8.3	5.0	11.7	7.0	38,100	35,400	5,100
SS130090	130	3WN	5B4X2AB	10' 6"	8.3	5.0	11.7	7.0	42,900	39,700	6,520
SS140090	140	3WN	5B4X2AB	10' 6"	6.7	4.0	10.0	6.0	44,500	41,200	6,540
SS150090	150	3WN	3AX4BAB	12' 7"	6.7	4.0	10.0	6.0	50,900	47,000	8,260
SS160090	160	3WN	3AX4BAB	12' 7"	5.8	3.5	8.3	5.0	52,700	48,700	8,360
SS170090	170	3WN	7BX6BAB	14' 7"	5.8	3.5	6.3	5.0	60,900	56,000	10,570
SS180090	180	3WN	7BX6BAB	14' 7"	5.0	3.0	7.5	4.5	62,900	57,900	10,650
SS190090	190	3WN	7BX6BAB	16' 8"	5.0	3.0	7.5	4.5	73,000	66,900	13,060

\* ANCHOR BOLTS OR BASE PART NO.

### GENERAL NOTES

1. TOWER DESIGNS ARE IN ACCORDANCE WITH APPROVED NATIONAL STANDARD ANSI/EIA-222-E-1991 (NO ICE).
2. EQUIVALENT FLAT-PLATE ANTENNA AREAS, BASED ON EIA RS-222-C, MUST NOT EXCEED THE AREAS SHOWN FOR FLAT MEMBER ANTENNA.
3. TOWER DESIGNS ASSUME ALLOWABLE PROJECTED AREAS ARE SYMMETRICALLY PLACED ON THE TOWER.
4. DESIGNS ASSUME ONE 7/8" LINE TO TOP AND TWO 7/8" LINES TO 30 FEET BELOW TOP, ONE PER FACE.
5. DO NOT INSTALL OR DISMANTLE TOWERS WITHIN TELLING DISTANCE OF ELECTRICAL AND/OR TELEPHONE LINES.
6. TOWER ERECTION AND DISMANTLING MUST BE BY QUALIFIED AND EXPERIENCED PERSONNEL.
7. INSTALL WARNING PLATE (P/N ACWS) IN A HIGHLY VISIBLE LOCATION.
8. ALL ANTENNA INSTALLATIONS MUST BE GROUNDED IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
9. FOR SECTION ASSEMBLY DETAILS AND PART NUMBERS SEE DRAWING E860101.
10. FOR ADDITIONAL BRACING, GROUTING AND DRAINAGE DETAILS SEE DRAWING SK70407.
11. FOR TAPERED TOP DETAILS SEE DRAWING SK70407.
12. ALL TOWERS WITH 3NH TOP SECTION PROVIDED WITH (P/N 3TT) TAPERED TOP.
13. ALL TOWERS WITH 3NH TOP SECTION PROVIDED WITH (P/N 4TT) TAPERED TOP.
14. FOR STEP BOLT DETAILS SEE DRAWING B651264.
15. FOR FOUNDATION DETAILS SEE DRAWING D870483.

REVISION	DATE	BY	CHKD	DATE	BY
1	5/12/66	WAS	WAS	5/12/66	WAS

THIS DRAWING IS THE PROPERTY OF R.O.H. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT WRITTEN CONSENT OF R.O.H.

DESIGNED BY: R O H N  
CHECKED BY: R O H N  
APPROVED BY: R O H N

40' TO 190' MODEL SSV TOWERS  
90 MPH WIND SPEED ANSI/EIA-222-E  
(NO ICE)

DRAWING NO. 1: C870699 R1

Tue 18 Dec 2001  
Ref. Date 02/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT WISGA2:  
Kissimmee River Flood Control - Contract 6A-2  
95% Submittal Estimate  
15. Floodway Control & Diversion Str

TIME 09:59:39  
DETAIL PAGE 27

15.03. Chre & Diversion of Water

QUANTITY	COM	CHRE	ID	OUTPUT	MANHRS	LABOR	EQUIP	MATERIAL	SUBCONTR	TOTAL	CST
AP MS <15697 2180 >	Strainers, bskt type, 3/4" pipe										
	flase, porf sat, simplex, bsz,										
	stressed										
	1.00 EA MSFETP11			4.48	0.53	19.17	0.00	183.42	0.00	202.60	267
						25		242	0		
MIL MS <02230 4010 >	Excavate utility trench. 38"										
	deep, 12' wide, 40 HP. chain										
	trencher										
	50.00 LF CONTR23			60.00	0.06	4.28	4.81	0.00	0.00	3.09	203
						54	119	0	0		
USR MS <15080 3102 >	Pressure Gage										
	4.00 EA MSFPA			1.25	1.00	36.15	0.00	53.00	0.00	89.15	118
						48	0	70	0		
USR MS <15080 3103 >	Vacuum Safety Switch										
	1.00 EA MSFPA			0.43	2.00	72.30	0.00	105.00	0.00	179.30	235
						95	0	140	0		
MIL MS <16921 1020 >	Cathodic protection, anodes,										
	magnesium type, 32 #										
	2.00 EA EMLER15			4.25	4.80	136.47	23.48	170.66	0.00	330.61	873
						360	62	481	0		
USR MS <15080 2104 >	Protective Cover										
	4.00 EA MSFPA			0.16	8.00	289.11	0.00	212.00	0.00	501.11	561
						382	0	280	0		
	TOTAL Spillway 867				1.198	51.457	13.781	235.043	0	300.321	

15.03.16. Electrical

15.03.16.00. Electrical

15.03.16.00.02. Boat Ramp

15.03.16.00.02. J. Electrical Work

USR BS <15711 0011 >	Water Connection by Utility										
	1.00 LS			0.00	0.00	0.00	0.00	0.00	0.00	700.00	924
						0	0	0	0		
MIL BS <15181 6020 >	Grounding, laid in trench,										
	copper, bare stranded. 2/g										
	0.00 NAF EMLER15			0.35	9.43	248.96	0.00	1187.20	0.00	1436.16	2
						0	0	2	0		
ASM BS <15324 0100 >	Water meters & sockets, 4 term,										
	200 A. socket. 1 position										
	4.00 EA EMLER15			0.40	2.50	75.41	0.00	29.15	0.00	104.56	138
						100	0	38	0		
AP BS <15622 5230 >	Mid Excr. floodlight, 250W high										
	press sodium lamp, encl, heavy										
	guy										
	13.00 EA EMLER15			0.69	3.63	110.33	0.00	310.58	0.00	480.91	7,223
						1,893	0	5,330	0		
USR BS <15611 4100 >	Compact fluorescent										
	7.00 EA EMLER15			4.00	2.50	75.41	0.00	180.20	0.00	256.11	2,366
						701	0	4,665	0		
USR BS <15617 0001 >	Light pole foundation										
	43' tall, round, 3" OD.										
	octagonal, conc										
	13.00 EA EMLER15			0.60	10.00	284.32	48.91	212.00	0.00	545.22	9,356
						130	839	2,638	0		

LABOR ID: NAT97B EQUIP ID: EG397B

Currency in Dollars

CROW ID: NAT97B USE ID: UP97EA

Tue 18 Dec 2001  
Ref. Date 03/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT W1622: Kissimmee River Flood Control  
95% Submittal Estimate  
15. Floodway Control & Diversion Str

Contract 6A-2

TIME 09:59:39  
DETAIL PAGE 28

15.03. Case & Diversion of Water

QUANTITY UOM CROW ID OUTPUT MANHRS LABOR EQUIPMENT MATERIAL SUBCOST TOTAL COST												
MIL EX	<16517 1040 >	Lighting, poles, one 6' mtr, 30' T roadway, galv steel, xmd, tapered	13.00 EA	BELEH15	0.82	95	7.33	208.29	35.83	892.99	0.00	1127.30
								3.574	615	15.152	0	19.361
USR EX	<16517 0002 >	Lighting, poles, wood, 20'	1.00 EA	BELEH15	3.00	2	2.00	56.86	9.78	455.80	0.00	522.44
								75	13	602	0	690
MIL EX	<16338 4400 >	Safety switch, mtr dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00 EA	BELEH15	0.31	5	4.05	146.29	0.00	421.87	0.00	568.15
								193	0	557	0	750
USR EX	<16181 0105 >	Ground Rod 3/4" x 20' Long	1.00 EA	BELEH15	0.50	2	2.00	60.33	0.00	132.50	0.00	192.83
		amp, enclosed 600 volt, 3 pole						80	0	175	0	255
MIL EX	<16325 4320 >	Panelboard assem, 12-20A brkr, main lug, 100A, 4P, 3 wire, 120/240V	1.00 EA	BELEH15	0.12	8	8.47	255.63	0.00	469.58	0.00	725.21
								337	0	620	0	957
USR EX	<16323 0001 >	Panel 4X Stainless steel encl	1.00 EA	BELEH15	0.42	2	2.40	72.39	0.00	795.00	0.00	867.39
		NOTE: Use for Panel L						96	0	4,049	0	4,145
MIL EX	<16018 0640 >	Conduit to 15' H, 3" dia, incl couplings only, steel rigid galv	12.00 LF	BELEH15	4.00	3	0.25	7.54	0.00	8.70	0.00	15.24
								119	0	138	0	257
		NOTE: Use for Panel L										
USR EX	<03000 0001 >	Concrete foundation	1.00 EA	ULARC5	0.75	8	8.00	187.80	9.87	106.00	0.00	303.66
								248	13	140	0	406
MIL EX	<02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1700.00 LF	CONTR23	33.25	183	0.11	2.30	3.26	0.00	0.00	5.56
								5,169	7,311	0	0	12,480
MIL EX	<16018 0380 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	17.00 LF	BELEH15	10.00	2	0.10	3.02	0.00	2.94	0.00	5.95
								68	0	66	0	134
MIL EX	<16018 0600 >	Conduit to 15' H, 2" dia, incl couplings only, steel rigid galv	30.00 LF	BELEH15	8.13	4	0.12	3.71	0.00	3.94	0.00	7.66
								147	0	156	0	303
MIL EX	<16119 1200 >	Misc, 600 volt, type THHN-THHN, copper, stranded, #12	0.01 MUF	BELEH15	0.14	0	7.25	218.58	0.00	76.85	0.00	295.43
								12	0	4	0	16
MIL EX	<16119 1250 >	Misc, 600 volt, type THHN-THHN, copper, stranded, #10	1.50 MUF	BELEH15	0.13	12	8.00	241.31	0.00	126.67	0.00	367.98
								478	0	351	0	729
MIL EX	<16119 1350 >	Misc, 600 volt, type THHN-THHN, copper, stranded, #6	0.95 MUF	BELEH15	0.08	12	12.35	372.40	0.00	275.60	0.00	648.00
								467	0	346	0	813
MIL EX	<16119 1600 >	Misc, 600 volt, type THHN-THHN, copper, stranded, 1/0	0.15 MUF	BELEH15	0.04	24	24.39	735.71	0.00	1113.00	0.00	1848.71
								146	0	220	0	366

LABOR ID: M197B EQUIP ID: R0397B

Currency in Dollars

CROW ID: M197B UPE ID: UPE7B

Tue 18 Dec 2001  
Ref. Date 03/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT K153A2: Mississippi River Flood Control - Contract 6A-2  
551 Submittal Estimate  
15. Floodway Control & Diversion Str

TIME 09:59:39  
DETAIL PAGE 29

15.03. Care & Diversion of Water

QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	SUBCONTRACT	TOTAL COST	
MIL EL	<16232 2482 >	Working device, receptacle, and fault interrupt, 20 amp, duplex	1.00 EA REHLEHCL	3.38	0.30	8.94	0.00	32.22	0.00	41.16
MIL EL	<16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1670.00 LF REHLEHCL	32.50	0.03	0.93	0.00	0.42	0.00	1.35
USR EL	<16153 0014 >	Cable Termination #12	57.00 EA REHLEHCL	31.26	0.08	2.43	0.00	0.27	0.00	2.69
USR EL	<16153 0013 >	Cable Termination #10	22.00 EA REHLEHCL	27.78	0.09	2.73	0.00	0.53	0.00	3.26
USR EL	<16153 0012 >	Cable Termination #6	10.00 EA REHLEHCL	25.00	0.10	3.04	0.00	0.30	0.00	3.34
USR EL	<16153 0010 >	Cable Termination #1/0	18.00 EA REHLEHCL	16.67	0.15	4.55	0.00	1.18	0.00	5.73
MIL EL	<16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	300.00 LF REHLEHCL	22.50	0.04	1.34	0.00	1.03	0.00	2.37
MIL EL	<16018 0520 >	Conduit to 15' x 3/4" dia, incl couplings only, steel rigid grav	30.00 LF REHLEHCL	15.63	0.06	1.93	0.00	1.29	0.00	3.22
MIL EL	<16711 0500 >	Elec & tel statwk, 2"x3"x3'-6" w/ hand holes, precast conc. w/conc cov	4.00 EA REHLEHCL	0.31	8.00	237.22	36.13	318.00	0.00	591.36
MIL EL	<16333 0520 >	Contractor, lighting, 30 amp, 600 volt 4 poie, electrically held	2.00 EA REHLEHCL	0.41	2.42	73.12	0.00	229.35	0.00	302.48
NOTE: Use for LCI & XCI										
TOTAL FOOT Ramp										
					529	22,363	8,839	32,731	924	64,857

0.00.03. Spillway S&T										
13.16.00.03. A. Primary Lane Extension										
USR EL <16910 0005 >	Utility Lane Relocation									
NOTE: Price quote/quote										
Glades Electric										
Jesse Plazid, PE										
4-800-226-4095										
Attn: Glenn Strinson										

15.03.16.00.03. Spillway S67

15.03.16.00.03. A. Primary Line Extension

USR EL <16910 0005 > Utility Line Relocation  
NOTE: Price quote/price  
Glades Electric  
Lake Placid, FL  
4-800-226-4025  
Attn: Glenn Stinson

1.00 205-SUBS-REHLEHCL

30.00 30 1.125 194 1.688 0 2.999

LABOR ID: NNTS7B EQUIP ID: RC397B

Currency in DOLLARS

CREW ID: NNTS7B UFA ID: UP97ER

QUANTITY	UNIT	CRUM ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	SUBCONTRACT	TOTAL COST
15.03.16.00	03. X. Electrical Work								
AP	EL	<16232 2480 > Wiring device, receptacle, and fault interrupt, 15 amp, duplex	3.38	0.30	0.94	0.00	30.42	0.00	39.36
					1	47	0	161	208
MIL	EL	<16234 0160 > Wiring device, concealed switch, 120 volt, 20 amp, SPST	4.38	0.73	21.94	0.00	9.46	0.00	31.39
					2	87	0	37	124
MIL	EL	<16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al. non-tapered	2.88	2.08	59.34	10.21	461.10	0.00	530.64
					4	157	37	1,217	1,401
MIL	EL	<16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	0.89	6.76	192.11	31.06	361.65	0.00	586.80
					14	507	87	955	1,549
USR	EL	<16617 3300 > Light Pole Foundation		8.00	227.45	39.13	243.80	0.00	310.38
					15	600	103	544	1,347
USR	EL	<16865 0110 > Control Panel	0.75	30.12	914.58	0.00	19080.00	0.00	19994.58
					30	1,207	0	25,393	26,393
MIL	EL	<16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	0.16	6.15	185.52	0.00	3047.50	0.00	3233.12
					5	245	0	4,023	4,268
USR	EL	<16181 0105 > Ground Rod 3/4" x 20' Long	0.60	2.00	60.33	0.00	332.50	0.00	392.83
					14	557	0	1,224	1,782
MIL	EL	<16181 5020 > Grounding, solid in trench, copper, bare stranded, 2/0	0.35	9.43	246.96	0.00	1187.20	0.00	1436.16
					6	197	0	940	1,137
MIL	EL	<16711 0580 > ELEC & Tel slots, 21x21x21-5" D band holes, precast conc, w/conc cov	0.31	7.99	236.84	36.08	318.00	0.00	590.92
					8	313	48	420	780
USR	EL	<16865 0125 > Level Gage		16.13	489.74	0.00	530.00	0.00	1019.74
					16	646	0	700	1,346
USR	EL	<16865 0125 > 2" PVC Coated Galv Conduit	2.27	0.44	13.27	0.00	8.48	0.00	21.75
					554	22,048	0	14,108	36,156
USR	EL	<16811 0580 > 1" PVC Coated Galv Conduit	3.45	0.29	8.75	0.00	4.24	0.00	12.99
					248	86,853	0	17,310	84,163
USR	EL	<16811 0530 > 3/4" PVC Coated Galv Conduit	5.00	0.20	6.03	0.00	3.71	0.00	9.74
					8	319	0	196	514
MIL	EL	<16119 1500 > Wire, 600 volt, type THHN-THHW, copper, stranded, 1/0	0.04	24.39	735.71	0.00	1113.00	0.00	1848.71
					12	485	0	735	1,220
MIL	EL	<16119 1158 > Wire, 600 volt, type THHN-THHW, copper, stranded, #5	0.03	12.35	372.40	0.00	275.60	0.00	648.00
					4	147	0	109	257

LABOR ID: NAT973      EQUIP ID: RG397B

**Currency in Dollars**

CREW ID: NAT97B UPB ID: UP97BA

Tue 18 Dec 2001  
Est. Date 03/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT K18612: Kiamas River Flood Control - Contract 6A-2  
394 Submittal Estimate  
15. Floodway Control & Diversion Str

TIME 09:59:19  
DETAIL PAGE 11

15.03. Care & Diversion of Water

QUANTITY		UOM	CRM ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	SUBCONTRACT	TOTAL	CST
MIL EL	<16119 1200 >	Mix, 600 volt, type THHN-THHN, copper, stranded, #12	22.70 MUF BELBELC1	0.14	7.25	219.58	0.00	76.85	0.00	296.43	
MIL EL	<16511 3030 >	Surface mtd fluor extr, 1" x 1" two 40%, drop opal lens	4.00 EA BELER22	3.25	1.43	40.30	0.00	61.48	0.00	101.78	
		NOTE: Use for type A (FEB)			6	213	0	325	0	537	
USR EL	<16511 0001 >	1/2" xtr, 175w Metal Halide (EH-1)	3.00 EA BELER22	0.72	2.76	83.26	0.00	450.50	0.00	533.76	
		NOTE: Use for fixture type B			6	220	0	1.189	0	1.409	
B USR EL	<16622 3010 >	1/2" xtr, 175w Metal Halide (EH1)	2.00 EA BELER22	0.72	2.76	83.26	0.00	450.50	0.00	533.76	
		NOTE: Use for fixture type C			6	220	0	1.189	0	1.409	
MIL EL	<16622 3060 >	1/2", MCD extr, 250W security, ext wall	4.00 EA BELER19	1.03	2.33	70.61	0.00	301.04	0.00	371.65	
		NOTE: Use for type D (250w Metal Halide EH9)			9	373	0	1.589	0	1.962	
MIL EL	<16611 4120 >	1/2" xtr, surf/pendant mtd, compact fluorescent mini flood	8.00 EA BELER22	2.88	1.52	45.56	0.00	147.34	0.00	192.90	
		NOTE: Use for type E (E12)			13	481	0	1.556	0	2.037	
USR EL	<16622 4400 >	1/2" xtr, 175w Metal Halide	1.00 EA BELER19	0.25	10.00	303.64	0.00	530.00	0.00	833.64	
		NOTE: Use for type F (E12)			10	481	0	700	0	1.100	
USR EL	<16622 4401 >	1/2" xtr, 175w Metal Halide	1.00 EA BELER19	0.50	5.00	151.82	0.00	212.00	0.00	263.82	
		NOTE: Use for type G (E12)			5	300	0	280	0	480	
MIL EL	<02210 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, Chain trencher	1300.00 LF COMER23	32.25	0.11	2.30	3.26	0.00	0.00	5.56	
					140	2.953	5.591	0	0	9.543	
MIL EL	<16119 1400 >	Mix, 600 volt, type THHN-THHN, copper, stranded, #4	0.10 MUF BELBELC1	0.07	15.15	457.03	0.00	424.00	0.00	881.03	
					2	60	0	56	0	116	
MIL EL	<16119 1300 >	Mix, 600 volt, type THHN-THHN, copper, stranded, #8	4.90 MUF BELBELC1	0.10	10.00	301.64	0.00	197.69	0.00	499.33	
					49	1.951	0	1.279	0	2.230	
USR EL	<16119 0990 >	Mix, 600 volt, type THHN-THHN, #16	4.70 MUF BELBELC1	0.17	5.75	173.36	0.00	42.40	0.00	215.76	
					27	2.076	0	263	0	1.339	
USR EL	<16153 0010 >	Cable Termination #1/0	36.00 EA BELER19	16.67	0.15	4.55	0.00	3.18	0.00	7.73	
					5	216	0	151	0	368	
USR EL	<16153 0011 >	Cable Termination #4	8.00 EA BELER19	20.83	0.12	2.64	0.00	1.11	0.00	4.76	
					1	36	0	12	0	50	

LABOR ID: NAT978 EQUIP ID: R03978

Currency in Dollars

CREW ID: NAT978 UPR ID: UP978A

TIME 09:59:39  
DETAIL PAGE 32

[illegible]

CREW ID: NAT97B URB ID: UP97EA

LABOR ID: WNT97B EQUIP ID: R3997B

2025

U.S. Army Corps of Engineers  
PROJECT K186A2: KISSANSEE RIVER FLOOD CONTROL - CONTRACT 6A-2  
95% SUBMITTAL ESTIMATE  
15. Floodway Control & Diversion Str

TIME 09:59:39  
DETAIL PAGE 33

13 ~~13~~ K each

**CURRENCY IN DOLLARS**

CREW YD: NAT97B UPB ID: UP97BA

~~Ady. of the P. A. Conference~~

Starter control



Tue 13 Dec 2001  
Eff. Date 03/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT K15612: Kiamase River Flood Control  
Sst Submittal Estimate  
15. Floodway Control & Diversion Str

TIME 09:59:19  
DETAIL PAGE 34

15.03. Care & Diversion of Nator

USR E4 <16006 0001 > Concrete antenna pole  
NOTE: Includes foundation,  
ground rod, ground cable,  
conduit, etc.

15.03.16.00.03. L. Emergency Generator

USR E4 <16513 2015 > Emergency Generator 20 KW

TOTAL SPILLWAY 867

15.03.16.00.05. Channel Improvements

15.03.16.00.06. A. Power Line Relocation

USR E4 <16910 0005 > Beat Pump Downstream 1-ph  
Utility Line Crossing

NOTE: Please quote from  
Glades Electric  
Lake Placid, FL  
1-800-226-4025  
Attn: Glenn Strimmon

USR E4 <16910 0005 > Hwy 98 1-PH Utility Line  
Crossing Allowance

USR E4 <16910 0005 > SR 621 3-PH Utility Line  
Crossing Allowance

15.03.16.00.06. B. Telephone Line Relocation

USR E4 <16711 0200 > Hwy 98 Sprint Fiber Cable  
Allowance

USR E4 <16711 0200 > CFX Bridge MCI Fiber Cable  
Allowance

USR E4 <16711 0200 > WorldCom Fiber Relocation  
NOTE: Price quote from  
WorldCom  
1949 Glaze Avenue  
West Palm Beach, FL 33401  
561-820-8949  
Attn: Dale Price

USR E4 <16711 0200 > SR 621 Sprint Fiber Cable  
Allowance

LABOR ID: NNT97B EQUIP ID: R0397B

Currency in Dollars

CREW ID: NNT97B UPS ID: UP97EA

QUANTITY	UNIT	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	SUBCONTRACT	TOTAL COST
1.00	EA	HELMER15	0.04	25.69	1998.52	0.00	3180.00	0.00	5178.52
				76	2,638	0	4,198	0	6,836
1.00	EA	HELMER15	0.06	39.68	1176.70	179.24	18550.00	0.00	19905.94
				40	1,883	237	24,486	0	26,276
				2,590	190,756	6,480	123,236	0	230,453
1.00	JOB	HELMER15	0.15	40.00	1137.26	195.83	2191.12	0.00	3254.01
				40	1,501	288	2,892	0	4,652
1.00	JOB	HELMER15	0.01	1000.00	28431.57	4890.87	10600.00	0.00	43922.43
				1,000	37,530	6,456	15,992	0	57,978
1.00	JOB	HELMER15	0.01	1000.00	28431.57	4890.87	10600.00	0.00	43922.43
				1,000	37,530	6,456	15,992	0	57,978
1.00	JOB		0.00	0.00	30354.00	0.00	10857.58	0.00	41211.58
				0	40,067	0	14,332	0	54,399
1.00	JOB		0.00	0.00	30354.00	0.00	10857.58	0.00	41211.58
				0	40,067	0	14,332	0	54,399
1.00	JOB		0.00	0.00	30000.00	0.00	33463.14	0.00	63463.14
				0	39,600	0	44,171	0	83,771
1.00	JOB		0.00	0.00	30354.00	0.00	10857.58	0.00	41211.58
				0	40,067	0	14,332	0	54,399

Tue 18 Dec 2001  
Ref. Date 03/01/01  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT K18612: Mississippi River Flood Control Contract 6A-2  
98A Submittal Estimate  
15. Floodway Control & Diversion Str

TIME 09:59:39  
DETAIL PAGE 35

15.03. Care & Diversion of Water

TOTAL Channel Improvements						
QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT
						MATERIAL
						SUBCOST
						TOTAL
						CST

GLEN,

QUANTITIES FOR PS1 SUBSTRUCTURE  
 (SOUTH FLORIDA WATER MGMT)

CONCRETE }  
 FINISHING } UP TO  
 REBAR } T.O.C EL+25.0  
 THX → ZACH BROWNSON

FORMWORK  
 & SAND FILL  
 TO FOLLOW  
 MONDAY  
 AFTERNOON

# SUBSTRUCTURE CONCRETE QUANTITIES

Description	Length (ft) - (in)	Width / Th (ft) - (in)	Depth / Ht (ft) - (in)	Number	Volume (m³)	Volume (yd³)	Concrete (pcf)	(c)
<b>FOUNDATION</b>								
Continuous base slab TOC EL -16.0	193 - 0.00	108 - 0.00	6 - 0.00	1	125084.0	4632.0	150	
<b>SUBTOTALS</b>					125084.0	4632.0		
<b>INTAKE ZONE</b>								
Training Pier (EL-16.0 to EL+16.0)								
Overall dimension	6 - 0.00	3 - 0.00	32 - 0.00	12	6912.0	256.0	150	
Subtract stoplog channel	1 - 2.00	0 - 3.50	32 - 0.00	-24	-281.3	-9.7	150	
West Wall (EL-16.0 to EL+16.0)								
Wall	48 - 0.00	4 - 0.00	32 - 0.00	1	6144.0	227.6	150	
Subtract stoplog channel	1 - 2.00	0 - 3.50	32 - 0.00	-1	-10.9	-0.4	150	
Interior Divider Walls (EL-16.0 to EL+16.0)								
Wall	48 - 0.00	3 - 0.00	32 - 0.00	3	13824.0	512.0	150	
Subtract stoplog channel	1 - 2.00	0 - 3.50	32 - 0.00	6	65.3	2.4	150	
Auxiliary Basin Walls (EL-16.0 to EL+16.0)								
Divider wall	48 - 0.00	4 - 0.00	32 - 0.00	1	6144.0	227.6	150	
Subtract stoplog channel	1 - 2.00	0 - 3.50	32 - 0.00	-3	-32.7	-1.2	150	
North end wall	10 - 6.00	3 - 0.00	32 - 0.00	2	2016.0	74.7	150	
Trash rake short walls	15 - 0.00	3 - 0.00	32 - 0.00	2	2880.0	106.7	150	
West Wall (EL-16.0 to EL+16.0)								
Wall	48 - 0.00	4 - 0.00	32 - 0.00	1	6144.0	227.6	150	
<b>SUBTOTALS</b>					43824.4	1623.1		3,286.8
<b>INTAKE BAYS EL-16.0 TO EL-6.0 (to bottom of intermediate slab)</b>								
<b>Exterior Walls</b>								
North Wall (separates intake basin from main bldg)	177 - 0.00	3 - 0.00	10 - 0.00	1	5310.0	196.7	150	
Subtract intake openings	24 - 0.00	3 - 0.00	10 - 0.00	-5	-3600.0	-133.3	150	
West Wall	57 - 0.00	4 - 0.00	10 - 0.00	1	2280.0	84.4	150	
South Wall	177 - 0.00	3 - 0.00	10 - 0.00	1	5310.0	196.7	150	
East Wall	57 - 0.00	4 - 0.00	10 - 0.00	1	2280.0	84.4	150	
<b>Interior Walls</b>								
Pump basin dividers (N-S)	49 - 0.00	3 - 0.00	10 - 0.00	4	5880.0	217.8	150	
Additional Interior Wall (either side of 250 cts pipe)	18 - 0.00	2 - 0.00	3 - 7.69	4	524.3	19.4	150	
Wall (top of fill conc EL-9.641)								
Additional Interior Wall (either side of 500 cts pipe)	18 - 0.00	2 - 0.00	1 - 6.25	4	219.0	8.1	150	
Wall (top of fill conc EL-7.521)								
<b>SUBTOTALS</b>					18203.3	674.2		1,365.2

4.9

460.8

-2.5

151.2

216.0

460.8

3,286.8

1823.1

43824.4

1623.1

3,286.8

196.7

-133.3

84.4

196.7

84.4

217.8

19.4

8.1

674.2

1,365.2

Date: May 18, 2006  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

STANLEY CONSULTANTS  
 Computed by: Z Brownson  
 Checked by: \_\_\_\_\_  
 Approved by: \_\_\_\_\_  
 PS1 Substructure Qlv.xls

FILL CONCRETE (Intake pipe formation)									
250 CFS Bay									
Diffuser chamber total (EL-16.0 to EL-6.0)	10 - 9.56	33 - 0.00	10 - 0.00	2	7125.9	263.9	150	534.4	
Subtract intake cone volume	11 - 0.00	12 - 0.00	4 - 6.00	-2	-1188.0	-44.0	150	-89.1	
Add diffuser wall	11 - 0.00	0 - 6.00	4 - 6.00	2	49.5	1.8	150	3.7	
Elbow chamber total (EL-16.0 to EL-9.641)	17 - 3.66	33 - 0.00	6 - 4.31	2	7263.1	269.0	150	644.7	
Subtract elbow volume	8 - 0.00	6 - 0.00	4 - 6.00	-2	-432.0	-16.0	150	-32.4	
Additional between North end and diffuser intake	12 - 0.00	4 - 0.00	10 - 0.00	4	1920.0	71.1	150	144.0	
500 CFS Bay									
Diffuser chamber total (EL-16.0 to EL-6.0)	17 - 4.78	33 - 0.00	10 - 0.00	2	0.0	0.0	150	0.0	
Subtract intake cone volume	13 - 0.00	18 - 0.00	5 - 9.00	-2	-2691.0	-99.7	150	-201.8	
Add diffuser wall	13 - 0.00	1 - 0.00	5 - 9.00	2	149.5	5.5	150	11.2	
Elbow chamber total (EL-16.0 to EL-7.521)	17 - 3.66	33 - 0.00	8 - 5.75	2	9662.7	358.6	150	726.2	
Subtract elbow volume	12 - 0.00	8 - 0.00	6 - 0.00	-2	-1152.0	-42.7	150	-86.4	
Additional between North end and diffuser intake	16 - 0.00	4 - 0.00	10 - 0.00	4	2560.0	94.8	150	192.0	
					34770.7	1287.8		2,507.8	
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness 2.5 ft)									
Exterior Walls									
North Wall	177 - 0.00	3 - 0.00	2 - 6.00	1	1327.5	49.2	150	99.6	
West Wall	57 - 0.00	4 - 0.00	2 - 6.00	1	570.0	21.1	150	42.8	
South Wall	177 - 0.00	3 - 0.00	2 - 6.00	1	1327.5	49.2	150	99.6	
East Wall	57 - 0.00	4 - 0.00	2 - 6.00	1	570.0	21.1	150	42.8	
Interior Walls									
Pump basin dividers	48 - 0.00	3 - 0.00	2 - 6.00	4	1470.0	54.4	150	110.3	
Slab above intake	29 - 0.00	33 - 0.00	2 - 6.00	4	9570.0	354.4	150	717.8	
Additional Interior Wall (either side of 250 cfs pumps)	18 - 0.00	2 - 0.00	2 - 6.00	4	360.0	13.3	150	27.0	
Additional Interior Wall (either side of 500 cfs pumps)	18 - 0.00	2 - 0.00	2 - 6.00	4	360.0	13.3	150	27.0	
Additional Divider Wall	33 - 0.00	3 - 0.00	2 - 6.00	4	990.0	36.7	150	74.3	
					16545.0	612.8		1,240.9	

INTAKE BAYS EL+3.5 TO EL+7.0 (to bottom of pipe gallery slab)							
Exterior Walls							
North Wall	177 - 0.00	3 - 0.00	10 - 6.00	5875.5	206.5	150	418.2
West Wall	57 - 0.00	4 - 0.00	10 - 6.00	2394.0	88.7	150	179.6
South Wall	177 - 0.00	3 - 0.00	10 - 6.00	5575.5	206.5	150	418.2
East Wall	57 - 0.00	4 - 0.00	10 - 6.00	2394.0	88.7	150	179.6
Interior Walls							
Pump basin dividers	49 - 0.00	3 - 0.00	10 - 6.00	6174.0	228.7	150	463.1
Additional Interior Wall (either side of 250 cfs pumps)							
Wall	18 - 0.00	2 - 0.00	10 - 6.00	1512.0	56.0	150	113.4
Additional Interior Wall (either side of 500 cfs pumps)							
Wall	18 - 0.00	2 - 0.00	10 - 6.00	1512.0	56.0	150	113.4
Additional Divider Wall							
Wall	33 - 0.00	3 - 0.00	10 - 6.00	4158.0	154.0	150	311.9
				SUBTOTALS	1085.0		2,197.1
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness 3.0 ft)							
Continuous slab TOC EL +10.0							
Subtract 250 cfs pipe penetrations (6" diam)	258 - 0.00	87 - 0.00	3 - 0.00	67338.0	2484.0	150	5,050.4
Subtract 500 cfs pipe penetrations (8" diam)	6 - 0.00	8 - 0.00	3 - 0.00	-216.0	-8.0	150	-16.2
Subtract for auxiliary pipe penetrations	1 - 0.00	1 - 0.00	3 - 0.00	-384.0	-14.2	150	-28.8
					-21.0	150	-1.6
				SUBTOTALS	29296.0		5,003.8
PIPE GALLERY EL+10.0 TO EL+22.0 (to bottom of operating deck slab)							
Exterior Walls							
North Wall	252 - 0.00	3 - 0.00	12 - 0.00	9072.0	336.0	150	680.4
Subtract access openings	6 - 0.00	3 - 0.00	12 - 0.00	-432.0	-16.0	150	-32.4
West Wall	87 - 0.00	3 - 0.00	12 - 0.00	3132.0	116.0	150	234.9
Subtract access openings	12 - 0.00	3 - 0.00	12 - 0.00	-432.0	-16.0	150	-32.4
South Wall	252 - 0.00	3 - 0.00	12 - 0.00	9072.0	336.0	150	680.4
Subtract 250 cfs pipe penetrations (6" diam)	6 - 0.00	3 - 0.00	6 - 0.00	-216.0	-8.0	150	-16.2
Subtract 500 cfs pipe penetrations (8" diam)	8 - 0.00	3 - 0.00	8 - 0.00	-384.0	-14.2	150	-28.8
East Wall	87 - 0.00	3 - 0.00	12 - 0.00	3132.0	116.0	150	234.9
				SUBTOTALS	2471.0		5,003.8
Interior Walls							
Gallery entrance wall (south side)	13 - 8.00	1 - 6.00	12 - 0.00	246.0	9.1	150	18.5
West side of auxiliary pumps	62 - 0.00	3 - 0.00	12 - 0.00	2232.0	82.7	150	167.4
South side or auxiliary pumps	33 - 0.00	2 - 0.00	12 - 0.00	792.0	29.3	150	59.4
Repeatable pump separation walls							
Main divider (N to S)	62 - 0.00	3 - 0.00	12 - 0.00	6696.0	248.0	150	502.2
Short wall (N to S)	18 - 0.00	2 - 0.00	12 - 0.00	1728.0	64.0	150	129.6
Hallway wall (N to S)	36 - 0.00	2 - 0.00	12 - 0.00	3456.0	128.0	150	259.2
Short wall (E to W)	7 - 6.00	2 - 0.00	12 - 0.00	720.0	26.7	150	54.0
Short wall (E to W)	25 - 6.00	2 - 0.00	12 - 0.00	4896.0	181.3	150	367.2
				SUBTOTALS	48168.0		3,461.9
South East Corner Interior Walls							
Stairwell wall	15 - 6.00	2 - 0.00	12 - 0.00	372.0	13.8	150	27.9
Wall (E to W)	27 - 8.00	2 - 0.00	12 - 0.00	1332.0	49.3	150	99.9
Wall (N to S)	31 - 0.00	2 - 0.00	12 - 0.00	744.0	27.6	150	55.8
				SUBTOTALS	1705.6		3,461.9

OPERATING DECK SLAB EL+22.0 TO EL+25.0 (assumes slab thickness 3.0 ft)									
Continuous slab TOC EL +25.0	268 - 0.00	87 - 0.00	3 - 0.00	1	67338.0	2494.0	150	5,050.4	
Subtract pump housing opening (14-2 diameter)	157 - 7.50	1 - 0.00	3 - 0.00	-4	-1891.5	-70.1	150	-141.9	
Subtract pipe gallery equipment access	10 - 0.00	10 - 0.00	3 - 0.00	-1	-300.0	-11.1	150	-22.5	
Subtract auxiliary shaft opening	29 - 4.00	4 - 0.00	3 - 0.00	-1	-352.0	-13.0	150	-26.4	
Subtract stairwell	17 - 0.00	17 - 6.00	3 - 0.00	-1	-882.5	-33.1	150	-66.9	
<b>SERVICE BRIDGE TOC EL+18.0</b>				<b>SUBTOTALS</b>	<b>63902.0</b>	<b>2366.7</b>		<b>4,792.7</b>	
<b>Slabs</b>									
Approach slab West	20 - 0.00	18 - 0.00	2 - 0.00	2	1440.0	53.3	150	108.0	
Approach slab East	20 - 0.00	28 - 0.00	2 - 0.00	2	2240.0	83.0	150	168.0	
Bridge slabs	18 - 0.00	33 - 0.00	2 - 0.00	5	5940.0	220.0	150	445.5	
Trash collection pad	10 - 0.00	33 - 0.00	2 - 0.00	1	660.0	24.4	150	49.5	
Guardrail									
Long walls	183 - 0.00	3 - 6.00	0 - 10.00	2	1067.5	39.5	150	80.1	
Short wall at trash pad	9 - 2.00	3 - 6.00	0 - 10.00	1	26.7	1.0	150	2.0	
Stair Platforms									
bottom platform	4 - 0.00	4 - 0.00	2 - 0.00	2	64.0	2.4	150	4.8	
top platform	4 - 0.00	4 - 0.00	2 - 0.00	2	64.0	2.4	150	4.8	
Training Pier Walkway									
Slab spanning intake bays TOC +16.0	33 - 0.00	3 - 6.00	2 - 0.00	4	924.0	34.2	150	69.3	
Subtract piers	3 - 0.00	3 - 6.00	2 - 0.00	-12	-252.0	-9.3	150	-18.9	
<b>ENTRANCE RAMPS</b>				<b>SUBTOTALS</b>	<b>12174.2</b>	<b>460.9</b>		<b>913.1</b>	
<b>AT Pipe Gallery</b>									
Slab (EL+17.0 to EL+10.0)	70 - 0.00	19 - 0.00	2 - 0.00	1	2860.0	98.5	150	199.5	
Walls (maintain at EL+18.0)	70 - 0.00	1 - 6.00	4 - 6.00	2	945.0	35.0	150	70.9	
AT Operation Floor									
Slab (EL+20.0 to EL+25.0)	50 - 0.00	17 - 0.00	0 - 6.00	1	425.0	15.7	150	31.9	
Walls (maintain 1 foot above slab)	50 - 0.00	1 - 6.00	1 - 0.00	2	150.0	5.6	150	11.3	
<b>MISCELLANEOUS</b>				<b>SUBTOTALS</b>	<b>4180.0</b>	<b>164.8</b>		<b>313.6</b>	
<b>Slab Under Lower Enclosure</b>									
Slab TOC +25.0	72 - 0.00	9 - 6.00	3 - 0.00	2	4104.0	152.0	150	307.8	
Pipe Support									
Pad under elbow inside building (EL+10.0)	10 - 0.00	10 - 0.00	1 - 0.00	4	400.0	14.8	150	30.0	
Subtract 250cfs pipe penetration	6 - 0.00	6 - 0.00	1 - 0.00	-2	-72.0	-2.7	150	-5.4	
Subtract 500cfs pipe penetration	8 - 0.00	8 - 0.00	1 - 0.00	-2	-128.0	-4.7	150	-9.8	
Erosion control slab under length of pipe (external)	210 - 0.00	10 - 0.00	1 - 0.00	4	8400.0	311.1	150	630.0	
*does not include horizontal length at top of dam									
Concrete thrust block	8 - 0.00	10 - 0.00	3 - 0.00	4	960.0	35.6	150	72.0	
Pipe support piers along diagonal run (wall)	10 0.00	2 0.00	4 0.00	5	400.0	14.8	150	30.0	
Pipe support piers along diagonal run (slab)	6 - 0.00	10 - 0.00	2 - 0.00	5	600.0	22.2	150	45.0	
Exterior Stair Landing Pads	5 - 0.00	5 - 0.00	1 - 0.00	5	125.0	4.6	150	9.4	
Stairs From Operation Deck to Pipe Gallery	20 - 0.00	7 - 6.00	3 - 0.00	1	443.8	16.4	150	33.3	
500cfs Pump Engine Foundation	6 - 0.00	18 - 0.00	3 - 0.00	2	648.0	24.0	150	48.6	
250cfs Pump Engine Foundation	5 - 0.00	16 - 0.00	3 - 0.00	2	480.0	17.8	150	38.0	
<b>SUBTOTALS</b>				<b>SUBTOTALS</b>	<b>16360.8</b>	<b>606.0</b>		<b>1,227.1</b>	

FUEL OIL STORAGE AREA									
East End Retaining Wall	150 - 0.00	1 - 0.00	4 - 0.00	1	600.0	22.2	150	45.0	
Stem height	150 - 0.00	1 - 0.00	1 - 0.00	1	300.0	11.1	150	22.5	
Footling slab	150 - 0.00	1 - 0.00	2 - 0.00	1	300.0	11.1	150	22.5	
Trench									
slab	8 - 0.00	5 - 0.00	1 - 0.00	1	40.0	1.5	150	3.0	
Walls	8 - 0.00	1 - 0.00	3 - 0.00	2	48.0	1.8	150	3.6	
Storage Area									
Slab	122 - 6.00	38 - 0.00	1 - 0.00	1	4855.0	172.4	150	349.1	
Walls	122 - 6.00	1 - 0.00	4 - 0.00	2	980.0	36.3	150	73.5	
Walls	36 - 0.00	1 - 0.00	4 - 0.00	2	288.0	10.7	150	21.6	
SUBTOTALS					7211.0	287.1		640.8	

Description	Length (ft) - (in)	Width / Th. (ft) - (in)	Depth / Ht. (ft) - (in)	Number	Volume (ft <sup>3</sup> )	Volume (yd <sup>3</sup> )	Concrete (pcf)	Weight (short-ton)
SUMMARY: CONCRETE QUANTITIES								
FOUNDATION					125084.0	4832.0		9,379.8
INTAKE ZONE					43824.4	1623.1		3,286.8
INTAKE BAYS EL-16.0 TO EL-6.0 (to bottom of intermediate slab)					18203.3	674.4		1,385.2
FILL CONCRETE (intake pipe formation)					34770.7	1287.8		2,607.8
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness 2.5 ft)					16545.0	612.8		1,240.9
INTAKE BAYS EL-3.5 TO EL-7.0 (to bottom of pipe gallery slab)					29295.0	1085.0		2,197.1
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness 3.0 ft)					66717.0	2471.0		5,003.8
PIPE GALLERY EL+10.0 TO EL+22.0 (to bottom of operating deck slab)					48158.0	1709.6		3,461.9
OPERATING DECK SLAB EL+22.0 TO EL+25.0 (assumes slab thickness 3.0 ft)					63902.0	2346.1		4,792.7
SERVICE BRIDGE TOC EL+16.0					12174.2	450.9		913.1
ENTRANCE RAMPS					4180.0	154.8		313.5
MISCELLANEOUS					18360.8	608.0		1,227.1
FUEL OIL STORAGE AREA					7211.0	267.1		540.8
TOTALS					484405.5	80425.1		36,330.4

355  
258  
SLAB  
WALLS

SLAB  
WALL  
8204

## SUBSTRUCTURE REINFORCING QUANTITIES

Description		Concrete Vol. (ft <sup>3</sup> )	Reinforcing (% by Vol)	Reinforcing Weight (pcf)	Weight (short ton)
SUMMARY: REINFORCING QUANTITIES					
FOUNDATION		125064.0	0.50%	490.0	153.2
INTAKE ZONE		43824.4	0.50%	490.0	53.7
INTAKE BAYS EL-16.0 TO EL-6.0 (to bottom of intermediate slab)		18203.3	0.50%	490.0	22.3
FILL CONCRETE (Intake pipe formation)		34770.7	0.50%	490.0	42.6
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness 2.5 ft)		16545.0	0.50%	490.0	20.3
INTAKE BAYS EL-3.5 TO EL+7.0 (to bottom of pipe gallery slab)		29295.0	0.50%	490.0	35.9
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness 3.0 ft)		66717.0	0.50%	490.0	81.7
PIPE GALLERY EL+10.0 TO EL+22.0 (to bottom of operating deck slab)		46158.0	0.50%	490.0	56.5
OPERATING DECK SLAB EL+22.0 TO EL+25.0 (assumes slab thickness 3.0 ft)		63902.0	0.50%	490.0	78.3
SERVICE BRIDGE TOC EL+16.0		12174.2	0.50%	490.0	14.9
ENTRANCE RAMPS		4180.0	0.50%	490.0	5.1
MISCELLANEOUS		16360.8	0.50%	490.0	20.0
FUEL OIL STORAGE AREA		7211.0	0.50%	490.0	8.8
TOTAL		484405.5			593.4

SLAB 12<sup>1/2</sup> in  
 WALLS 8 in

SLAB 14<sup>1/2</sup> in  
 WALL 6 in



ANLEY CONSULTANTS  
 computed by: Z Brownson  
 Checked by: \_\_\_\_\_  
 Approved by: \_\_\_\_\_  
 PS1 Substructure Qty.xls

Date: May 18, 2006  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

Sheet No. \_\_\_\_\_  
 Job No. 1730009  
 Structure Information  
 Pump Structure Concrete  
 1 of 3

### SUBSTRUCTURE FINISHING QUANTITIES

Description	Length (ft) - (in)	Width (ft) - (in)	Number	Area (ft <sup>2</sup> )
<b>FOUNDATION</b>				
Continuous base slab TOC EL -16.0	193 - 0.00	108 - 0.00	1.0	20,844.0
			<b>SUBTOTAL</b>	<b>20,844.0</b>
<b>FILL CONCRETE (Intake pipe formation)</b>				
Top of fill concrete (vertical pipe location)	33 - 0.00	18 - 0.00	4.0	2,376.0
Subtract 250cfs pipe area	6 - 0.00	6 - 0.00	-2.0	-72.0
Subtract 500cfs pipe area	8 - 0.00	8 - 0.00	-2.0	-128.0
			<b>SUBTOTAL</b>	<b>2,176.0</b>
<b>INTAKE BAYS EL 6.0 TO EL 3.5 (assumes slab thickness 2.5 ft)</b>				
Slab above intake	29 - 0.00	33 - 0.00	4.0	3,828.0
			<b>SUBTOTAL</b>	<b>3,828.0</b>
<b>PIPE GALLERY SLAB EL 7.0 TO EL +10.0 (assumes slab thickness 3.0 ft)</b>				
Continuous slab TOC EL +10.0	258 - 0.00	87 - 0.00	1.0	22,446.0
Subtract 250 cfs pipe penetrations (6' diam)	6 - 0.00	6 - 0.00	-2.0	-72.0
Subtract 500 cfs pipe penetrations (8' diam)	8 - 0.00	8 - 0.00	-2.0	-128.0
Subtract for auxiliary pipe penetrations	1 - 0.00	1 - 0.00	-7.0	-7.0
			<b>SUBTOTAL</b>	<b>22,239.0</b>
<b>OPERATING DECK SLAB EL +22.0 TO EL +25.0 (assumes slab thickness 3.0 ft)</b>				
Continuous slab TOC EL +25.0	258 - 0.00	87 - 0.00	1.0	22,446.0
Subtract pump housing opening (14-2 diameter)	157 - 7.50	1 - 0.00	-4.0	-630.5
Subtract pipe gallery equipment access	10 - 0.00	10 - 0.00	-2.0	-200.0
Subtract auxiliary shaft opening	29 - 4.00	4 - 0.00	-1.0	-117.3
Subtract stairwell	17 - 0.00	17 - 6.00	-1.0	-297.5
			<b>SUBTOTAL</b>	<b>21,200.7</b>

Date: May 18, 2006  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

<b>SERVICE BRIDGE TO CIEL +16.0</b>					
<b>Slabs</b>					
Approach slab West	20 - 0.00	18 - 0.00	1.0	360.0	
Approach slab East	20 - 0.00	28 - 0.00	1.0	560.0	
Bridge slabs	185 - 0.00	18 - 0.00	1.0	3,330.0	
Trash collection pad	40 - 0.00	10 - 0.00	1.0	400.0	
<b>Stair Platforms</b>					
bottom platform	4 - 0.00	4 - 0.00	2.0	32.0	
top platform	4 - 0.00	4 - 0.00	2.0	32.0	
<b>Training Pier Walkway</b>					
Slab spanning intake bays TOC +16.0	149 - 0.00	3 - 6.00	1.0	521.5	
			<b>SUBTOTAL</b>	<b>5,235.5</b>	
<b>ENTRANCE RAMPS</b>					
<b>At Pipe Gallery</b>					
Slab (EL+17.0 to EL+10.0)	70 - 0.00	19 - 0.00	1.0	1,330.0	
<b>AT Operation Floor</b>					
Slab (EL+20.0 to EL+25.0)	50 - 0.00	17 - 0.00	1.0	850.0	
			<b>SUBTOTAL</b>	<b>2,180.0</b>	
<b>MISCELLANEOUS</b>					
<b>Slab Under Louver Enclosure</b>					
Slab TOC +25.0	72 - 0.00	9 - 6.00	2.0	1,368.0	
<b>Pipe Support</b>					
Pad under elbow inside building (EL+10.0)	10 - 0.00	10 - 0.00	4.0	400.0	
Subtract 250cfs pipe penetration	6 - 0.00	6 - 0.00	-2.0	-72.0	
Subtract 500cfs pipe penetration	8 - 0.00	8 - 0.00	-2.0	-128.0	
Erosion control slab under length of pipe (external)	210 - 0.00	10 - 0.00	4.0	8,400.0	
*does not include horizontal length at top of dam					
<b>Exterior Stair Landing Pads</b>					
Stairs From Operation Deck to Pipe Gallery	5 - 0.00	5 - 0.00	5.0	125.0	
500cfs Pump Engine Foundation	20 - 0.00	7 - 6.00	1.0	147.9	
250cfs Pump Engine Foundation	6 - 0.00	18 - 0.00	2.0	216.0	
	5 - 0.00	16 - 0.00	2.0	160.0	
			<b>SUBTOTAL</b>	<b>10,616.9</b>	

FUEL OIL STORAGE AREA				
East End Retaining Wall Footing slab	150 - 0.00	2 - 0.00	1.0	300.0
Trench slab	8 - 0.00	5 - 0.00	1.0	40.0
Storage Area Slab	122 - 6.00	38 - 0.00	1.0	4,655.0
SUBTOTAL				4,995.0

Description			Area (ft²)
SUMMARY: FINISHING QUANTITIES			
FOUNDATION			20,844.0
FILL CONCRETE (Intake pipe formation)			2,176.0
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness 2.5 ft)			3,828.0
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness 3.0 ft)			22,239.0
OPERATING DECK SLAB EL+22.0 TO EL+25.0 (assumes slab thickness 3.0 ft)			21,200.7
SERVICE BRIDGE TOC EL+16.0			5,235.5
ENTRANCE RAMPS			2,180.0
MISCELLANEOUS			10,616.9
FUEL OIL STORAGE AREA			4,995.0
		TOTAL	93315.1

**SUBSTRUCTURE SAND FILL QUANTITIES**

Description	Length (ft) - (in)	Width / Th. (ft) - (in)	Depth / Ht. (ft) - (in)	Number	Volume (ft <sup>3</sup> )	Volume (yd <sup>3</sup> )
Cells above intake EL+3.5 to EL+7.0	23 - 0.00	33 - 0.00	10 - 6.00	4	40194.0	1488.7
Cells next to 250 cfs pipe EL+6.41 to EL+7.0	18 - 0.00	5 - 6.00	15 - 7.69	4	6193.8	229.4
Cells next to 500 cfs pipe EL+7.521 to EL+7.0	18 - 0.00	5 - 6.00	14 - 6.25	4	5750.3	213.0
From EL+10.0 to EL+22.0						
cells near main hallway	25 - 6.00	12 - 0.00	12 - 0.00	4	14688.0	544.0
cells near pipes	18 - 0.00	5 - 6.00	12 - 0.00	4	4752.0	176.0
cell near auxiliary pipes	33 - 0.00	26 - 0.00	12 - 0.00	1	10296.0	381.3
cell near auxiliary pipes	13 - 8.00	60 - 0.00	12 - 0.00	1	9840.0	364.4
cell near stairwell	27 - 9.00	11 - 0.00	12 - 0.00	1	3863.0	135.7
cell near stairwell	27 - 9.00	16 - 0.00	12 - 0.00	1	5328.0	197.3
<b>TOTALS</b>					<b>100705.2</b>	<b>3729.8</b>

**FORMWORK**  
**SUBSTRUCTURE CONCRETE QUANTITIES**

FOUNDATION	Description	Length (ft) - (in)	Width / Th. (ft) - (in)	Depth / Ht. (ft) - (in)	Number	Area (ft <sup>2</sup> )
Continuous base slab TOC EL -16.0		193 - 0.00		6 - 0.00	2	2316.0
		108 - 0.00		6 - 0.00	2	1296.0
FOUNDATION SOG SUBTOTAL						3612.0
SUCTION BASIN						
Training Pier (EL-16.0 to EL+16.0)	length	6 - 0.00		32 - 0.00	24	4808.0
	width	3 - 0.00		32 - 0.00	24	2304.0
East Wall (EL-16.0 to EL+16.0)	length	48 - 0.00		32 - 0.00	2	3072.0
	end	4 - 0.00		32 - 0.00	1	128.0
Interior Divider Walls (EL-16.0 to EL+16.0)	length	48 - 0.00		32 - 0.00	6	9216.0
	end	3 - 0.00		32 - 0.00	3	288.0
Auxiliary Basin Walls (EL-16.0 to EL+16.0)	length	48 - 0.00		32 - 0.00	2	3072.0
	end	4 - 0.00		32 - 0.00	1	128.0
North end wall length (end qty in other walls)	length	10 - 6.00		32 - 0.00	2	672.0
	trash rake wall length	15 - 0.00		32 - 0.00	4	1920.0
West Wall (EL-16.0 to EL+16.0)	length	3 - 0.00		32 - 0.00	2	192.0
	end	48 - 0.00		32 - 0.00	2	3072.0
WALLS SUBTOTAL						28800.0
INTAKE BAYS EL-16.0 TO EL-6.0 (to bottom of intermediate slab)						
Exterior Walls	North Wall length	177 - 0.00		10 - 0.00	2	3540.0
	Subtract Intake openings	24 - 0.00		10 - 0.00	-10	-2400.0
North Wall ends	length	3 - 0.00		10 - 0.00	10	300.0
	width	67 - 0.00		10 - 0.00	2	1140.0
West Wall length	length	4 - 0.00		10 - 0.00	2	80.0
	width	177 - 0.00		10 - 0.00	2	3540.0
South Wall length	length	57 - 0.00		10 - 0.00	2	1140.0
	width	4 - 0.00		10 - 0.00	2	80.0
East wall ends	length	49 - 0.00		10 - 0.00	8	3920.0
	width	18 - 0.00		3 - 7.69	8	524.3
Additional Interior Wall (either side of 250 cts pipe)	length	18 - 0.00		1 - 6.25	8	219.0
	width	18 - 0.00				
WALLS SUBTOTAL						12083.3

FILL CONCRETE (Intake pipe formation)				
250 CFS Bay				
side wall at front	15 - 6.00		10 - 0.00	4
side wall at middle	19 - 8.60		10 - 0.00	4
front wall at middle	14 - 0.00		5 - 9.00	2
back wall at middle	14 - 0.00		3 - 0.00	2
side wall at back	15 - 7.20		6 - 4.32	4
divider wall	41 - 7.20		4 - 3.00	2
suction cone top	10 - 0.00		14 - 0.00	2
pipe elbow diameter (average circumference)	15 - 1.00		8 - 9.60	2
500 CFS Bay				
side wall at front	17 - 7.20		10 - 0.00	4
side wall at middle	14 - 9.60		10 - 0.00	4
front wall at middle	18 - 6.00		3 - 0.00	2
back wall at middle	18 - 6.00		6 - 0.00	2
side wall at back	20 - 7.20		8 - 6.00	4
divider wall	31 - 7.20		5 - 6.00	2
suction cone top	15 - 0.00		18 - 6.00	2
pipe elbow diameter (average circumference)	19 - 9.60		11 - 7.20	2
WALL SUBTOTAL				8644.3
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness 2.5 ft)				
Exterior Walls				
North Wall length	177 - 0.00		2 - 6.00	2
West Wall length	57 - 0.00		2 - 6.00	2
West Wall ends	4 - 0.00		2 - 6.00	2
South Wall length	177 - 0.00		2 - 6.00	2
East Wall length	57 - 0.00		2 - 6.00	2
East Wall ends	4 - 0.00		2 - 6.00	2
Interior Walls				
Pump basin dividers length	49 - 0.00		2 - 6.00	8
Additional Interior Wall (either side of 250 cfs pumps)	18 - 0.00		2 - 6.00	8
Wall				
Additional Interior Wall (either side of 500 cfs pumps)	18 - 0.00		2 - 6.00	8
Wall				
Additional Divider Wall	33 - 0.00		2 - 6.00	8
Wall				
WALLS SUBTOTAL				4740.0
Slab above intake				
no side forms necessary, walls form slab				
Slab above intake				
Slab TOC EL-3.5 elevated forms	15 - 6.00	24 - 0.00		2
Slab TOC EL-3.5 elevated forms	17 - 7.20	24 - 0.00		2
ELEVATED SLAB SUBTOTAL				1588.8

INTAKE BAYS EL+3.8 TO EL+7.0 (to bottom of pipe gallery slab)					
Exterior Walls					
North Wall length	177 - 0.00		10 - 6.00	2	3717.0
West Wall length	57 - 0.00		10 - 6.00	2	1197.0
West Wall ends	4 - 0.00		10 - 6.00	2	84.0
South Wall length	177 - 0.00		10 - 6.00	2	3717.0
East Wall length	57 - 0.00		10 - 6.00	2	1197.0
East Wall ends	4 - 0.00		10 - 6.00	2	84.0
Interior Walls					
Pump basin dividers length	49 - 0.00		10 - 6.00	8	4116.0
Additional Interior Wall (either side of 250 cfs pumps)					
Wall	18 - 0.00		10 - 6.00	8	1512.0
Additional Interior Wall (either side of 500 cfs pumps)					
Wall	18 - 0.00		10 - 6.00	8	1512.0
Additional Divider Wall					
Wall	33 - 0.00		10 - 6.00	8	2772.0
				<b>WALLS SUBTOTAL</b>	<b>19508.0</b>
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness 3.0 ft)					
Continuous slab TOC EL +10.0 length	258 - 0.00		3 - 0.00	2	1548.0
Slab width	87 - 0.00		3 - 0.00	2	522.0
Add 250 cfs opening forms	10 - 0.00		3 - 0.00	8	240.0
Add 500 cfs opening forms	10 - 0.00		3 - 0.00	8	240.0
Add auxiliary opening forms	1 - 0.00		3 - 0.00	28	84.0
				<b>SOG SUBTOTAL</b>	<b>2634.0</b>
elevated forms	50 - 0.00	33 - 0.00		1	1650.0
elevated forms	16 - 0.00	18 - 0.00		4	1296.0
Subtract 250 cfs pipe penetrations (6' diam)	10 - 0.00	10 - 0.00		-2	-200.0
Subtract 500 cfs pipe penetrations (8' diam)	10 - 0.00	10 - 0.00		-2	-200.0
Subtract for auxiliary pipe penetrations	1 - 0.00	1 - 0.00		-7	-7.0
				<b>ELEVATED SLAB SUBTOTAL</b>	<b>2539.0</b>
PIPE GALLERY EL+10.0 TO EL+22.0 (to bottom of operating deck slab)					
Exterior Walls					
North Wall length	252 - 0.00		12 - 0.00	2	6048.0
North Wall ends	3 - 0.00		12 - 0.00	6	216.0
Subtract access openings	3 - 0.00		12 - 0.00	-4	-144.0
West Wall length	78 - 0.00		12 - 0.00	2	1872.0
West Wall ends at openings	3 - 0.00		12 - 0.00	2	72.0
Subtract access openings	12 - 0.00		12 - 0.00	-2	-288.0
South Wall length	252 - 0.00		12 - 0.00	2	6048.0
South Wall ends	3 - 0.00		12 - 0.00	2	72.0
Subtract 250 cfs pipe penetrations (6' diam)	6 - 0.00		8 - 0.00	-2	-128.0
Subtract 500 cfs pipe penetrations (8' diam)	8 - 0.00		3 - 0.00	8	144.0
Add 250 cfs blockout forms	6 - 0.00		3 - 0.00	8	192.0
Add 500 cfs blockout forms	8 - 0.00		12 - 0.00	2	1872.0
East Wall	78 - 0.00				

Interior Walls		OPERATING DECK SLAB EL +22.0 TO EL +25.0 (assume slab thickness 3.0 ft)		WALLS SUBTOTAL	
Gallery entrance wall length	13 - 8.00	258 - 0.00	3 - 0.00	2	328.0
West side of auxiliary pumps length	62 - 0.00	87 - 0.00	3 - 0.00	2	1488.0
West side of auxiliary pumps end	3 - 0.00	44 - 6.00	3 - 0.00	4	36.0
South side of auxiliary pumps length	33 - 0.00	15 - 6.00	3 - 0.00	2	792.0
Column near stairwell	2 - 0.00	7 - 6.00	3 - 0.00	2	96.0
Repeatable pump separation walls		10 - 0.00	3 - 0.00	4	
Main divider (N to S) length	62 - 0.00	29 - 4.00	3 - 0.00	2	4464.0
Main divider end	3 - 0.00	4 - 6.00	3 - 0.00	2	108.0
Short wall (N to S) length	18 - 0.00	15 - 6.00	3 - 0.00	8	1728.0
Hallway wall (N to S) length	36 - 0.00	27 - 8.00	3 - 0.00	8	3456.0
Hallway wall end	2 - 0.00	31 - 0.00	3 - 0.00	8	192.0
Short wall (E to W) length	7 - 6.00	2 - 0.00	3 - 0.00	8	720.0
Short wall end	2 - 0.00	15 - 6.00	3 - 0.00	4	96.0
Short wall (E to W) length	25 - 6.00	2 - 0.00	3 - 0.00	16	4896.0
South East Corner Interior Walls		15 - 6.00	3 - 0.00	2	372.0
Stairwell wall length	2 - 0.00	2 - 0.00	3 - 0.00	1	24.0
Wall (E to W) length	27 - 8.00	27 - 8.00	3 - 0.00	4	1332.0
Wall (N to S) length	31 - 0.00	31 - 0.00	3 - 0.00	2	744.0
Wall end	2 - 0.00	2 - 0.00	3 - 0.00	1	24.0
Stairwell dividing wall length	15 - 6.00	15 - 6.00	3 - 0.00	2	372.0
Stairwell dividing wall end	1 - 0.00	1 - 0.00	3 - 0.00	1	12.0
		WALLS SUBTOTAL			37184.0
OPERATING DECK SLAB EL +22.0 TO EL +25.0 (assume slab thickness 3.0 ft)		ELEVATED SLAB SUBTOTAL			13093.4
Continuous slab TOC EL +25.0 Length		SOG SUBTOTAL			3065.0
Slab width	258 - 0.00	16 - 0.00	1	3936.0	
add pump housing opening formwork 14-2 diam	87 - 0.00	3 - 0.00	2	18.0	
add stair opening formwork length	44 - 6.00	3 - 0.00	1	36.0	
add stair opening formwork width	15 - 6.00	34 - 0.00	1	1122.0	
add pipe gallery equipment access formwork	7 - 6.00	26 - 0.00	2	1008.0	
add auxiliary shaft opening formwork length	10 - 0.00	19 - 0.00	2	3588.0	
add auxiliary shaft opening formwork width	29 - 4.00	19 - 7.00	4	1440.0	
	4 - 6.00	23 - 9.00	1	1527.5	
elevated formwork hallway	246 - 0.00	2 - 0.00	1	1398.3	
elevated formwork north wall openings	3 - 0.00	1 - 0.00	1	35.0	
elevated formwork west wall openings	12 - 0.00	10 - 0.00	-4	-630.5	
elevated formwork auxiliary pipes	33 - 0.00	4 - 0.00	-1	-100.0	
elevated formwork hallway	36 - 0.00	20 - 0.00	-1	-117.3	
elevated formwork pipe exit area	69 - 0.00	3 - 3.00	2	130.0	
elevated formwork above pipe elbow	20 - 0.00				
elevated formwork hallway near stairs	78 - 0.00				
elevated formwork hallway near stairs	47 - 0.00				
subtract column and stairwell wall	17 - 6.00				
Subtract pump housing opening (14-2 diameter)	157 - 7.50				
Subtract pipe gallery equipment access	10 - 0.00				
Subtract auxiliary shaft opening	29 - 4.00				
Subtract stairwell opening	17 - 0.00				
elevated formwork stairs	3 - 3.00				



SERVICE BRIDGE TOC EL+16.0					
Slabs	20 - 0.00	2 - 0.00	80.0		
Approach slab West length	18 - 0.00	2	72.0		
Approach slab West width	20 - 0.00	2	80.0		
Approach slab East length	28 - 0.00	2	112.0		
Bridge slabs TOC EL+16.0 length	33 - 0.00	9	594.0		
Trash collection pad length	33 - 0.00	1	66.0		
stair platform formwork	4 - 0.00	12	96.0		
training pier walkway sides	24 - 0.00	8	384.0		
		<b>SOG SUBTOTAL</b>	<b>1484.0</b>		
Guardrail					
Long walls length	183 - 0.00	4	2562.0		
Long walls end	0 - 10.00	6	17.5		
Short wall at trash pad length	9 - 2.00	2	64.2		
		<b>WALLS SUBTOTAL</b>	<b>2643.7</b>		
Stair Platforms					
elevated formwork bottom platforms	4 - 0.00	2	32.0		
elevated formwork top platforms	4 - 0.00	2	32.0		
Training Pier Walkway					
elevated formwork Slab spanning intake bays TOC	6 - 0.00	16	336.0		
Elevated formwork Bridge slabs	18 - 0.00	5	2970.0		
Elevated formwork Trash collection pad	10 - 0.00	1	330.0		
		<b>ELEVATED SLAB SUBTOTALS</b>	<b>3700.0</b>		
ENTRANCE RAMPS					
At Pipe Gallery					
Slab (EL+17.0 to EL+10.0) length	70 - 0.00	2	140.0		
slab width	19 - 0.00	1	19.0		
AT Operation Floor					
Slab (EL+20.0 to EL+25.0) length	50 - 0.00	2	100.0		
slab width	17 - 0.00	1	17.0		
		<b>SOG SUBTOTAL</b>	<b>276.0</b>		
At Pipe Gallery					
Walls (maintain at EL+18.0) length	70 - 0.00	4	1260.0		
Walls end	1 - 6.00	2	13.5		
AT Operation Floor					
Walls (maintain 1 foot above slab) length	50 - 0.00	4	200.0		
Walls end	1 - 6.00	2	3.0		
		<b>WALLS SUBTOTAL</b>	<b>2028.5</b>		

<b>MISCELLANEOUS</b>				
Slab Under Louver Enclosure	72 - 0.00	3 - 0.00	2	432.0
Slab TOC +25.0 length	9 - 6.00	3 - 0.00	4	114.0
Slab width				
Exterior Stair Landing Pads	5 - 0.00	1 - 0.00	20	100.0
stair tread formwork:operation deck to pipe gallery	3 - 3.00	1 - 0.00	26	84.5
500cfs Pump Engine Foundation length	6 - 0.00	3 - 0.00	4	72.0
500cfs Pump Engine Foundation width	18 - 0.00	3 - 0.00	4	216.0
250cfs Pump Engine Foundation length	5 - 0.00	3 - 0.00	4	60.0
250cfs Pump Engine Foundation width	16 - 0.00	3 - 0.00	4	192.0
Pipe Support				
Pad under elbow inside building (EL+10.0)	10 - 0.00	1 - 0.00	16	160.0
pipe penetration formwork	6 - 0.00	1 - 0.00	8	48.0
pipe penetration formwork	8 - 0.00	1 - 0.00	8	64.0
Erosion slab under length of pipe (external) length	210 - 0.00	1 - 0.00	8	1680.0
Erosion slab width	10 - 0.00	1 - 0.00	8	80.0
		SOG SUBTOTAL		3302.5
Concrete thrust block width	10 - 0.00	3 - 0.00	8	240.0
Concrete thrust block length	8 - 0.00	3 - 0.00	8	192.0
Pipe support piers along diagonal run (slab)	32 - 0.00	2 - 0.00	20	1280.0
		FOOTING SUBTOTAL		1712.0
Elevated formwork Stairs:Operation Deck-Pipe Gallery	20 - 0.00		1	147.9
		ELEVATED SLAB SUBTOTAL		147.9
6" curb at aux shaft opening	68 - 8.00	0 - 6.00	1	34.3
Pipe support piers along diagonal run (wall)	24 - 0.00	4 - 0.00	20	1920.0
		WALLS SUBTOTAL		1954.3
<b>FUEL OIL STORAGE AREA</b>				
East End Retaining Wall				
Footling slab	306 - 0.00	1 - 0.00	1	306.0
Footling below slab	302 - 0.00	2 - 0.00	1	604.0
		FOOTING SUBTOTAL		910.0
Storage Area				
Slab length	122 - 6.00	1 - 0.00	2	245.0
Slab width	38 - 0.00	1 - 0.00	2	76.0
trench slab	26 - 0.00	1 - 0.00	1	26.0
		SOG SUBTOTAL		347.0
retaining stem wall	302 - 0.00	4 - 0.00	1	1208.0
trench walls	17 - 0.00	3 - 0.00	2	102.0
building Walls length	122 - 6.00	4 - 0.00	4	1960.0
Walls end	1 - 0.00	4 - 0.00	2	8.0
Walls	36 - 0.00	4 - 0.00	4	576.0
		WALLS SUBTOTAL		2544.0

350 710 3150 150 3182 2150

Description	FOOTING (SF)	SOG (SF)	EL SLAB (SF)	WALLS (SF)
SUMMARY: FORMWORK QUANTITIES				
FOUNDATION		3612.0		28800.0
SUCTION BASIN				12083.3
INTAKE BAYS EL-16.0 TO EL-6.0 (to bottom of intake)				6644.3
FILL CONCRETE (Intake pipe formation)			1588.8	4740.0
INTAKE BAYS EL-6.0 TO EL-3.5 (assumes slab thickness)				19908.0
INTAKE BAYS EL-3.5 TO EL+7.0 (to bottom of pipe gallery)		2834.0	2639.0	
PIPE GALLERY SLAB EL+7.0 TO EL+10.0 (assumes slab thickness)				37184.0
PIPE GALLERY EL+10.0 TO EL+22.0 (to bottom of operating deck)		3065.0	13093.4	
OPERATING DECK SLAB EL+22.0 TO EL+25.0 (assumes slab thickness)		1484.0	3700.0	2643.7
SERVICE BRIDGE TO EL+16.0		276.0		2028.5
ENTRANCE RAMPS	1712.0	3302.5	147.9	1954.3
MISCELLANEOUS	910.0	347.0		2544.0
FUEL OIL STORAGE AREA				
TOTALS	2622.0	14720.5	21089.1	118630.1

4128.5

**Stanley Consultants, Inc.**  
 Designed By: K. Hall 5/24/2006  
 Checked By: D. Dreyer 5/24/2006

PROJECT NO. 17300.09.02  
 C43PS1  
 Structural And Miscellaneous Steel  
 Preliminary Quantities  
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 Sheet 1 of 3

Structural and Miscellaneous Steel.xls

	Length (ft)	Width (ft)	Height (ft)	Unit Wt (lb/ft)	No.	Takeoff Qty.	Unit
<b>PS1 Superstructure - Per Frame</b>							
Roof Purlins (assume W12x26)	18			26	11	2.6	Tons
Bottom Chord Bracing (5" Dia Pipe)	18			14.62	3	0.4	Tons
Diagonal Bracing (L3x3x1/4)	22.41			9.8	4	0.4	Tons
Wall Framing (12" HSS)	18			94	4	3.4	Tons
Roof Truss K Brace (2-L3x3x1/4)	11.40			9.8	2	0.1	Tons
Truss Chords (WT 9X48.5)	164.15			48.5	1	4.0	Tons
Truss Diagonals (2 - L4x4x1/2)	194.41			12.8	2	2.5	Tons
Columns (W14x145)	90.16			145	1	6.5	Tons
<b>TOTAL (per frame)</b>						19.9	Tons
<b>TOTAL (all bays)</b>					15	<b>298.6</b>	<b>Tons</b>
<b>PS1 Louver Enclosure Framing</b>							
HSS 10x6x1/4	18			25.82	4	0.9	Tons
HSS 6x6x1/4	18			19.02	4	0.7	Tons
	8.75			19.02	12	1.0	Tons
	9.25			19.02	5	0.4	Tons
	16.67			19.02	17	2.7	Tons
	17.00			19.02	5	0.8	Tons
	4.50			19.02	32	1.4	Tons
<b>TOTAL (per enclosure)</b>						7.9	Tons
<b>TOTAL (all enclosures)</b>					2	<b>15.9</b>	<b>Tons</b>
<b>Pump Gear Base Plates</b>							
14'-2" Diameter x 3" Thick	12.55	12.55	0.25	490	4	38.6	Tons

**Stanley Consultants, Inc.**  
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PROJECT NO. 17300.09.02  
 C43PS1  
 Structural And Miscellaneous Steel  
 Preliminary Quantities  
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 Sheet 2 of 3

Structural and Miscellaneous Steel.xls

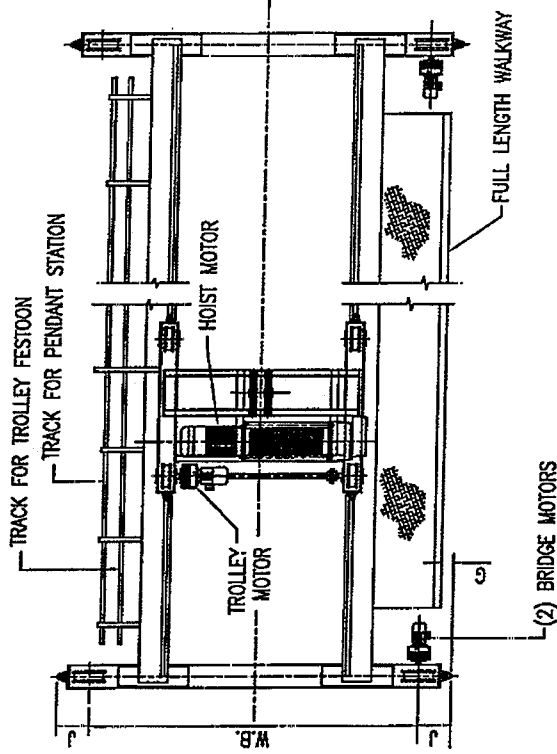
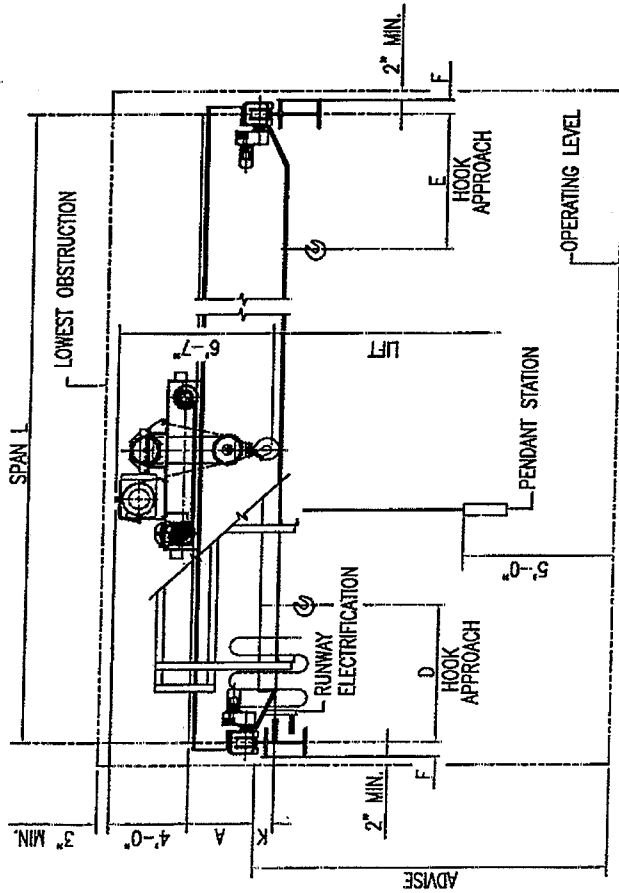
	Length (ft)	Width (ft)	Height (ft)	Unit Wt (lb/ft)	No.	Takeoff Qty.	Unit
<b>Engine Maintenance Platforms</b>	20	3.5			8	560.0	SF
<b>Roof Access Ladder</b>							
Ladder	26.00				2	52.0	LF
Cage	20.00				2	40.0	LF
Platform	3.00	2.50			1	7.5	SF
<b>Steel Guardrail</b>							
Stoplog Access Platform	150				2	300	LF
Retaining Wall	150				1	150	LF
Ramp to Operating Floor	50				2	100	LF
Ramp to Pipe Gallery	74				2	148	LF
<b>Total</b>						698	LF
<b>Auxiliary Equipment Support Platforms</b>	12	12		5	8	2.88	Tons
<b>Stoplogs</b>							
Skin Plate	32.00	6.25	0.03125	490	1	1.53	Tons
Edge Channels (C12x20.7)	76.50			20.7	1	0.79	Tons
Stiffener Channels (C12x20.7)	6.25			20.7	6	0.39	Tons
<b>Total for 4 Stoplogs</b>					4	2.71	Tons
						10.84	Tons
<b>Stoplog Recess Armoring</b>							
X L4x4x1/2	128.00			12.8	34	27.85	Tons
3/4" dia x 4 1/2" Long headed studs @ 18" o.c.	128.00			1.5	34	2901	Ea

**Stanley Consultants, Inc.**  
Designed By: K. Hall 5/24/2006  
Checked By: D. Dreyer 5/24/2006

PROJECT NO. 17300.09.02  
C43PS1  
Structural And Miscellaneous Steel  
Preliminary Quantities  
Page  
Sheet 3 of 3

Structural and Miscellaneous Steel.xls

	Length (ft)	Width (ft)	Height (ft)	Unit Wt (lb/ft)	No.	Takeoff Qty.	Unit
Bridge Crane Runway							
W24x162 Girder	252			162	2	40.82	Tons
100# Rail	252			33.33	2	8.40	Tons



CAP. TONS	SPAN L	A	D	E	F	G	J MIN.	K	WHEEL DIA.	W.B.	RUNWAY RAIL SIZE	MAX. WHEEL LOAD LBS.	BRIDGE WEIGHT LBS.
40	40'-0"	3'-6"	4'-6"	3'-10"	9"	2"	1'-9"	9"	24"	10'-0"	100#	67200	24800
50	50'-0"	3'-9"	4'-6"	3'-10"	9"	2"	1'-9"	1'-1"	24"	10'-0"	100#	72500	33100
60	60'-0"	4'-0"	4'-6"	3'-10"	10"	0"	1'-11"	10"	27"	11'-0"	100#	76000	41900
	70'-0"	4'-3"	4'-6"	3'-10"	10"	0"	1'-11"	8"	27"	12'-0"	100#	80100	54200
	80'-0"	4'-6"	4'-6"	3'-10"	10"	0"	1'-11"	7"	27"	13'-0"	100#	85600	72900
	90'-0"	4'-9"	4'-6"	3'-10"	10"	0"	1'-11"	9"	27"	14'-0"	135#	90900	91000
	100'-0"	5'-0"	4'-6"	3'-10"	10"	-1"	1'-11"	11"	27"	15'-0"	135#	96800	111200

450,000 19000L

TROLLEY MODEL			
3161D-2826	3161D-4826	3161D-5826	
LIFT	25'-10"	34'-0"	38'-11"
TROLLEY WEIGHT	8400 LBS.	9330 LBS.	9480 LBS.

HOISTING SPEED	10/1.7 FPM
BRIDGE SPEED	100 FPM (VARIABLE)
TROLLEY SPEED	80 FPM (VARIABLE)
POWER SUPPLY	460/3/60

- NOTES:
1. HOIST CLASSIFICATION: H4 / FEM 3M
  2. LONGER LIFTS ARE AVAILABLE.
  3. SPEEDS SHOWN ARE STANDARD, OTHER SPEEDS ARE AVAILABLE.
  4. AUXILIARY HOIST AVAILABLE.
  5. VARIABLE FREQUENCY DRIVE AVAILABLE FOR HOIST

**ACECO**  
 AMERICAN CRANE  
 & EQUIPMENT CORPORATION  
 DOUGLASSVILLE, PA. 19518 U.S.A.  
 PHONE: 610-385-6061  
 FAX: 610-385-3191

CLASS D TOP RUNNING  
 DOUBLE GIRDER CRANE  
 (WITH MODULAR HOIST)

60 TON CAPACITY

PRODUCT INFORMATION

DWG. NO:

A-20418-317

DATE: 10/8/04

REVISION: 0

STANLEY CONSULTANTS  
 Computed by: D. Dreyer  
 Checked by: \_\_\_\_\_  
 Approved by: \_\_\_\_\_  
 Saxophone Discharge Qty.xls

Date: May 23 2006  
 Date: \_\_\_\_\_  
 Date: \_\_\_\_\_

Sheet No. \_\_\_\_\_  
 Job No. 1730009  
 C43PS1  
 Saxophone Discharge Structure  
 Quantities  
 1 of 1

**Saxophone Discharge Quantities**

Description	Length (ft) - (in)	Width / Th (ft) - (in)	Depth / Ht (ft) - (in)	Number	QTY	Volume (yd <sup>3</sup> )	Unit Weight	Weight (short ton)
	-	-	-		0 0	0 0	150	0 0
<b>Excavation</b>								
EL 17 00 to EL 0 00	74 - 0 00	26 - 0 00	17 - 0 00	4	130832 0	4845 6		
<b>Cofferdam</b>								
Sheet Pile	200 - 0 00	1 - 0 00	42 - 0 00	4	33600 0		24 17	406 1
I - Wall								
Concrete	176 - 0 00	2 - 0 00	8 - 0 00	4	11264 0	417.2		
Add for waste						20.9		
Total Concrete						438 0		
Anchor Wall Reinforcing					67 6		490	16 6
Tremie Concrete (EL 0 00 to EL 4 00)	72 - 0 00	24 - 0 00	4 - 0 00	4	27648 0	1024 0		
Thrust Block Concete	13 - 0 00	12 - 0 00	13 - 0 00	4	8112 0	300 4		
<b>Backfilling</b>								
On-site Material - EL 0 00 to EL 18 00	72 - 0 00	24 - 0 00	14 - 0 00	4	96768 0	3584 0		
Subtotal								
Subtract Volume Displaced by Thrust Block	13 - 0 00	12 - 0 00	13 - 0 00	-4	-8112 0	-300 4		
Subtract Volume Displaced by Pipe	26 - 0 00	7 - 0 00	7 - 0 00	-4	-5096 0	-188 7		
Add for Shrinkage (20%)						3094.8		
Total backfill						619.0		
						3713 8		
Rip Rap EL 18 00 to EL 20 00	74 - 0 00	24 - 0 00	2 - 0 00	4	14208 0	526 2	120	31 6



**TABLE 1**  
**SOUTH FLORIDA WATER MANAGEMENT DISTRICT**  
**ENGINEERING AND CONSTRUCTION DEPARTMENT**  
**C-43 STORAGE RESERVOIR**  
**PUMP STATION 1**  
**Quotations**

Equipment	Unit Price	Suppliers
500 cfs Pump (pump only)	\$712,000	Flowserve
250 cfs Pump (pump only)	\$435,000	Flowserve
1050 gpm Cooling Water Pump (pump and motor)	\$13,911	ITT
525 gpm Cooling Water Pump (pump and motor)	\$11,789	ITT
100 gpm Lubrication Water Pump (pump and motor)	\$7,440	ITT
250 CFS Vacuum Pumps (pump, motor and accessories)	\$15,934	NASH
Trash Rake		
Raking machine with 2 trolley/grippers and controls	\$586,000	Bracket Green
Five-304L Screen / 1 Lot / 1200 x 1200	\$1,650,000	Bracket Green
Field Service	\$12,000	Bracket Green
Potable Water System		
Softener	\$1,029	
RO Unit (with booster pump)	\$2,350	
Hydropneumatic Tank	\$8,740	
UV Unit	\$414	

## Component Quantities for Cost Estimating

[illegible]

## Component Quantities for Cost Estimating

## Pump Engine

[illegible]

### Component Quantities for Cost Estimating

## Vacuum Priming System

[illegible]

### Component Quantities for Cost Estimating

## Lubricating Water Supply System

[illegible]

## Component Quantities for Cost Estimating

### Lube Oil Supply System

Equipment	Size	Quantity	Material	Cost per Unit	Total
Pump Truck Piping Connection	4"	2			
Reducer	4" x 3"	2	4" A53 B ERW Perma-Pipe, Sch 40	15174-5912 MPLUQ1 9 MMS \$117.2 MATL	
Pressure Indicator		9			
Ball Valve	3"	3	Carbon Steel CL 150	15197-5559 MPLUPLUM 3.5 MMS \$285 MATL	
Lube Oil Receiving Pump	25 gpm	1			
Check Valve	3"	2	Carbon Steel CL 150		
Lube Oil Storage Tank	1200 gal	1		13205-3000 MSPFR76 MMS \$2,600 MATL	
Plug Valve	1"	1	Carbon Steel CL 150		
Level Gage and Transmitter		1			
Ball Valve	2"	9	Carbon Steel CL 150		
Lube Oil Transfer Pump	25 gpm	2			
Lube Oil Makeup Pump	3 gpm	2			
Check Valve	2"	8	Carbon Steel CL 150		
Three Way Valve	2"	2	Carbon Steel CL 150		
Moisture Separator	2" inlet	4		15193-7821 MPLUPLUM 1.2 MMS \$80 MATL	
Globe Valve	2"	2	Carbon Steel CL 150		
Gate Valve	1"	4	Carbon Steel CL 150		
Reducer	2" x 1 1/2"	4	4" A53 B ERW Perma-Pipe, Sch 40	15174-5912 MPLUQ1 7 MMS \$117.2 MATL	
Solenoid Gate Valve	1.5"	4	Carbon Steel CL 150	15194-5511 MPLUPLUM 1.1 MMS \$185 MATL	
Pipe	4"	10'	6" A53 B ERW Perma-Pipe, Sch 40	15172-0001 MPLUQ2 1.2 MMS \$104 MATL	
Pipe	3"	30'	6" A53 B ERW Perma-Pipe, Sch 40	15172-0002 MPLUQ2 1.05 MMS \$93 MATL	
Pipe	2"	320'	4" A53 B ERW Perma-Pipe, Sch 40	15172-0003 MPLUQ2 0.82 MMS \$80	

## Component Quantities for Cost Estimating

### Potable/Service Water Supply System

<u>Equipment</u>	<u>Size</u>	<u>Quantity</u>	<u>Material</u>	<u>Cost per Unit</u>	<u>Total</u>
Ball Valve	1"	16	Jamesbury/Nibco		
Ultraviolet Units	14 gpm	2			
Reducer	1" x 3/4"	8	ASTM B88 Type K		
Well pump	10 gpm	1			
Water Softeners	10 gpm	2			
Ball Valve	3/4"	4	Jamesbury/Nibco		
Reverse Osmosis Booster Pump	10 gpm	2	(manual w/RO unit)		
Check Valve	1/2"	2	Crane		
Ball Valve	1/2"	8	Jamesbury/Nibco		
Reverse Osmosis Filter Cartridge	10 gpm	2			
Reverse Osmosis Units	3 gpm	6			
Storage Tank	200 gal	1			
Booster Pumps and Hydropneumatic Tank Package	100 gal	1			
Level Transmitter		1			
Check Valve	1.5"	1	Crane		
Reducer	1.2" x 1"	1	ASTM B88 Type K		
Pipe	1"	200'	ASTM B88 Type K		

## Component Quantities for Cost Estimating

## Compressed Air System

[illegible]



## Component Quantities for Cost Estimating

### Waste Fuel & Engine Oil System

Equipment	Size	Quantity	Material	Cost per Unit	Total
Pump Truck Piping Connection	4"	4		02481 - 0211 MSPFRG 144	*340 MATL
Reducer	4" x 3"	3	6" A53 B ERW Perma Pipe, Sch 40	15188 - 0013 MSPFRG 24 MHS \$1,475	
Ball Valve	3"	8	Carbon Steel CL 150	15190 - 0411 MFLWR 2 MHS	*225 MATL
Check Valve	3"	2	Carbon Steel CL 150		
Check Valve	2"	4	Carbon Steel CL 150		
Ball Valve	2"	7	Carbon Steel CL 150		
Level Gage with Transmitter		4			
Flame Arrestor		4		15411 - 0211 MFLWR 10.44 MHS	*50 MATL
Waste Lube/Fuel Oil Collection Tanks	1200 gal	2	Double Walled, Fire and Ballistic Resistant	13205 - 0011 MSPFR 7 B MHS	*10,000 MATL
Waste Lube/Fuel Oil Tanks	1200 gal	2	Double Walled, Fire and Ballistic Resistant	13205 - 0012 MSPFR 7 B MHS	*10,000 MATL
Waste Lube/Fuel Oil Transfer Pumps	25 gpm	2			
Waste Lube/Fuel Oil Pumps	50 gpm	2			
Pressure Indicator		3			
Plug Valve	1"	6	Carbon Steel CL 150		
Ball Valve	3/4"	2	Carbon Steel CL 150		
Reducer	2" x 1 5"	4+ 4 = 8	4" A53 B ERW Perma Pipe, Sch 40	15188 - 0013 MSPFRG 2.2 MHS \$1,400 MATL	
Gate Valve	3/4"	4	Carbon Steel CL 150		
Reducer	1" x 1/2"	4	4" A53 B ERW Perma Pipe, Sch 40	15188 - 0012 MSPFR 2.1 MHS \$1,275	
Pipe	4"	10'	6" A53 B ERW Perma Pipe, Sch 40		
Pipe	3"	400'	6" A53 B ERW Perma Pipe, Sch 40		
Pipe	2"	250'	4" A53 B ERW Perma Pipe, Sch 40		
Pipe	1"	120'	4" A53 B ERW Perma Pipe, Sch 40		
Pipe	3/4"	30'	4" A53 B ERW Perma Pipe, Sch 40		
Globe Valve	1"	4	Carbon Steel CL 150		

# WASTE FUEL & ENGINE OIL SYSTEM (CON'T)

Reducer	1 5" x 2"	2	4" A53 B ERW Perma-Pipe, Sch 40	ADD TO PREVIOUS SHEET	
Reducer	2" x 1"	4	4" A53 B ERW Perma-Pipe, Sch 40	13188-004 MSPFQ6 2 MHS \$1,300 MATH	
Silencer	8" Inlet	2	Stainless Steel 304 L	15162-3040 MPWQ1 10 MHS \$1,500 MATH	
Solenoid Gate Valve	2"	3	Carbon Steel CL 150	15194-3513 MPWPLUM 1 3 MHS 900 MATH	
Solenoid Gate Valve	1"	6	Carbon Steel CL 150	15194-3512 2 MHS \$850 MATH	
Three Way Valve	3"	2	Carbon Steel CL 150	15193-7822 MPWPLUM 1 3 MHS \$1,000 MATH	
Caterpillar Generators 3412	500 KW @ 1800RPM	2			
Fuel Oil Day Tank	775 gal	2	Double Walled, Fire and Ballistic Resistant	13205-0013 MSPFQ7 8 MHS \$5,000	
Fuel Oil Day Tank	425 gal	2	Double Walled, Fire and Ballistic Resistant	13203-0016 MSPFQ7 8 MHS \$4,000	

## Component Quantities for Cost Estimating

### Cooling Water Supply System

Equipment	Size	Quantity	Material	Cost per Unit	Total
Level Gage and Transmitter		3			
Back Pressure Regulator	1.5"	3			
Ball Valve	4"	1	Carbon Steel CL 150		
Ball Valve	3"	4 + 2 = 6	Carbon Steel CL 150		
Ball Valve	1.5"	4	Carbon Steel CL 150		
Ball Valve	1"	5 + 2 = 7	Carbon Steel CL 150		
Ball Valve	3/4"	5	Carbon Steel CL 150		
Ball Valve	1/2"	2	Carbon Steel CL 150		
Check Valve	3"	9	Carbon Steel CL 150		
Check Valve	4"	1	Carbon Steel CL 150		
Check Valve	1.5"	3	Carbon Steel CL 150		
Check Valve	3/4"	2	Carbon Steel CL 150		
Expansion Joint	8"	4	Stainless Steel 304 L		
Flame Arrestor		4			
Flexible Connection	3/4"	2			
Flexible Connection	1/2"	2			
Fuel Oil Filter	3" Inlet	4			
Fuel Oil Receiving Connection	4"	2			
Fuel Oil Receiving Pump	225 gal	1			
Fuel Oil Storage Tank	25000 gal	4	Double Walled, Fire and Ballistic Resistant	13205-3127 MSPFR732	MMS 50000 GAL
Fuel Oil Transfer Pump	20 gpm	3			
Globe Valve	3"	5	Carbon Steel CL 150	15194-4560 MPWR1 3,5 MMS	790000 GAL
Globe Valve	2"	7	Carbon Steel CL 150		
Pipe	4"	15'	6" A53 B ERW Perma-Pipe, Sch 40		
Pipe	3"	120'	6" A53 B ERW Perma-Pipe, Sch 40		
Pipe	2"	180'	4" A53 B ERW Perma-Pipe, Sch 40		
Pipe	1 1/2"	200'	4" A53 B ERW Perma-Pipe, Sch 40		
Pipe	1"	40'	4" A53 B ERW Perma-Pipe, Sch 40		
Pipe	3/4"	65'	4" A53 B ERW Perma-Pipe, Sch 40		
Pipe	1/2"	15'	4" A53 B ERW Perma-Pipe, Sch 40	15194-2419 MSPFR52	87 MMS 44230 GAL
Pipe	8"	18'	Stainless Steel 304 L		
Plug Valve	1"	3	Carbon Steel CL 150		
Pressure Indicator		3			
Reducer	4" x 3"	1	6" A53 B ERW Perma-Pipe, Sch 40		

### Component Quantities for Cost Estimating

## Cooling Water Supply System

<u>Equipment</u>	<u>Size</u>	<u>Quantity</u>	<u>Material</u>	<u>Cost per Unit</u>	<u>Total</u>
Ball Valve	1"	5	Carbon Steel CL 150	ADD TO PREVIOUS SHEET	
Ball Valve	3"	4	Carbon Steel CL 150	ADD TO PREVIOUS SHEET	
Butterfly Valve	10"	12	Carbon Steel CL 150		
Butterfly Valve	6"	7	Carbon Steel CL 150		
Check Valve	10"	3	Carbon Steel CL 150		
Check Valve	6"	2	Carbon Steel CL 150		
Combination Air Valve	1"	5	Carbon Steel CL 150		
Needle Valve	3"	4	Carbon Steel CL 150	15197-0010 MPLUR 1 2MMS #	
Pipe	10"	600'	A106 B, Sch 40		
Pipe	2"	30'	A106 B, Sch 40		
Pipe	3"	600'	A106 B, Sch 40		
Pipe	3/4"	10'	A106 B, Sch 40		
Pipe	6"	15'	A106 B, Sch 40		
Pressure Indicator		20			
Pressure Reducing Valve	10"	3	Carbon Steel CL 150	15193-795D MPLUP LUM 1 5MMS	
Pressure Reducing Valve	6"	2	Carbon Steel CL 150	15193-790D MPLUP LUM 1 3MMS	
Pump	1050 gpm	3		\$13,911.00	\$41,733.00
Pump	525 gpm	2		\$11,789.00	\$23,578.00
Reducer	10" x 4"	2	A106 B, Sch 40		
Reducer	10" x 8"	3	A106 B, Sch 40		
Reducer	6" x 4"	2	A106 B, Sch 40		
Self Cleaning Strainer	10" conn	6			
Self Cleaning Strainer	6" conn	4			
Solenoid Gate Valve	2"	10	Carbon Steel CL 150		
Solenoid Gate Valve	3"	4	Carbon Steel CL 150	15194-350A MPLUP LUM 1 3MMS	
Motor Operated Plug Valve	4"	4	Carbon Steel CL 150	15199-7010 MPLUD 1 10MMS	
Ball Valve	6"	4	Carbon Steel CL 150		

#4, 50 MATL  
#3, 20 MATL

\$ 1,200 MATL  
\$ 1,500 MATL



**Pump & Equipment Associates Inc.**

3524 Craftsman Blvd  
Lakeland, FL 33803

3006 Mercury Road  
Jacksonville, FL 32207

**Tel:** (800) 780-7867 •

**Fax:** (863) 666-5649

**Jax Fax:** (904) 733-8204

**Proposal**

**Name:** Jeff Jiang  
**Address:** Stanley Consultants  
West Palm Beach  
Phone 561-689-7444  
Fax 561-689-3003

**Number:** 040706

**Date:** April 7, 2006

**Subject:** NASH Priming System Pricing You Requested

Jeff,

Here is the pricing you requested. Please review and let me know what additional questions you may have

*This proposal is submitted on behalf of Gardner Denver Nash, LLC. as seller and is subject to Gardner Denver Nash, LLC. Terms and Conditions Form T-C0600.doc Thank you for your interest in Gardner Denver Nash equipment for your facility. Based on the information provided we are pleased to offer the following for your consideration.*

**Option 1 – 1005 CFM @ 28" Hg**

<u>Qty</u>	<u>Code</u>	<u>Description</u>	<u>Unit Price</u>	<u>Price</u>
2		XL 250 Vacuum pump, all Iron construction With 60 HP, 1750 rpm, 3/60/230-460 volt, TEFC motor. Complete assembly includes pump, motor, belts, sheaves, belt guard and bedplate. The pump will turn at 880 rpm	27,480 00	54,960 00

The following accessories are also included;

Seal water strainer  
Solenoid Valve  
Flow Control Valve  
Separator/Silencer  
Vacuum Gauge  
Pressure Gauge  
Flow Switch  
Inlet Check Valve  
Relief Valve  
All piping and fittings for accessory assembly

**Option 2 – 503 CFM @ 28" Hg**

<u>Qty</u>	<u>Code</u>	<u>Description</u>	<u>Unit Price</u>	<u>Price</u>
4		XL 80 Vacuum pump, all Iron construction With 40 HP, 1750 rpm, 3/60/230-460 volt, TEFC motor. Complete assembly includes pump, motor, coupling, guard and bedplate	15,934 00	63,736 00

The following accessories are also included;

Seal water strainer  
Solenoid Valve  
Flow Control Valve  
Separator/Silencer  
Vacuum Gauge  
Pressure Gauge  
Flow Switch  
Inlet Check Valve  
Relief Valve  
All piping and fittings for accessory assembly

*TERMS OF PAYMENT are net 30 days from date of invoice.*

*VALIDITY of this proposal to be sixty (60) days from date of quotation All prices are firm through delivery.*

*WARRANTY: All Nash manufactured equipment offered in our proposal include a TWO (2) YEAR WARRANTY against defects in material and workmanship from date of shipment.*

*SHIPMENT: XL 250 – 6 to 8 weeks. XL 80 – 12 to 16 weeks. All equipment is shipped freight collect unless otherwise stated in your purchase order. Should your order be tax exempt, please furnish us with a tax-exempt certificate with your purchase order.*

*Should you have any questions or comments, please do not hesitate to contact me.*

*To expedite delivery an order resulting from this proposal should be written to:*

***Hudson Pump and Equipment, L.L.C.***

*3524 Craftsman Blvd Lakeland, FL. 33803*

*Sincerely yours,*

*Chuck McCaughey  
Hudson Pump and Equipment Associates, LLC  
Representatives of Gardner Denver Nash, LLC*

**Jensen, Glenn**

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**From:** Ahlschwede, Jon  
**Sent:** Friday, May 19, 2006 12:52 PM  
**To:** Jensen, Glenn  
**Cc:** Grounds, Dave; Roeth, Brad  
**Subject:** FW: Pump Quote - C43PS4

For your use on Pump Station No 4

Jon

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**From:** Victor Powell [mailto:powellkugler@hotmail.com]  
**Sent:** Friday, May 19, 2006 12:32 PM  
**To:** Grounds, Dave; Ahlschwede, Jon  
**Cc:** 'zan kugler'  
**Subject:** Pump Quote - C43PS4

Gentlemen:

Please forward the attached to your estimators Please note that the "Pump Quote" includes the Motors which we have priced separately

Thanks,  
vic

5/19/2006

**Weir Floway - Fresno Main Office**

2494 S Railroad Ave  
PO Box 164  
Fresno, Ca 93707  
U. S. A.

Tel: 559-442-4000  
Fax: 559-442-3098



To: Powell Kugler, Inc.  
500 S Australian Ave St 600  
West Palm Beach, Florida 33401-6237  
561 820-4891

Date: May 18 2006  
Quoted to ref no :  
Project name: C43 RESERVOIR PUMP STATION  
Quote number: 19934  
Rev No :

Attn: ZAN KUGLER  
zkugler@yahoo.com

With reference to your project noted above, we are pleased to submit our proposal covering the equipment described herein

The following is a price summary for this project See itemized quote for details

Item Number	Service	Pump Size	Unit Price	Unit Freight	Qty	Extended Price
001		- 1 stage Product lube - Barrel Pump	\$ 368 946	\$ 14 758	3	\$ 1 151 112
Grand Total						\$ 1,151,112

**COMMENTS:** OUR QUOTE WAS PREPARED PER YOUR REQUEST FOR BUDGET PURPOSES ONLY:

PLEASE NOTE: ANY REQUIREMENTS NOT OUTLINED IN THE REFERENCED SECTIONS ABOVE WILL NOT BE THE RESPONSIBILITY OF FLOWAY.

OUR QUOTE DOES NOT INCLUDE:

OIL OR GREASE  
GAUGES  
VALVES  
CONTROLS  
SPARE PARTS  
SALES TAX  
START-UP, TRAINING, OR INSTALLATION SUPERVISION

CURRENT SUBMITTAL LEAD TIME IS 8 WEEKS!

**COMMENTS & CLARIFICATIONS**

Progress Payment Schedule  
\$100,000 - \$500,000

10% upon order acceptance  
15% upon submission of approval documents  
35% upon receipt of materials  
40% net 30 days from shipment

**SCOPE OF SUPPLY:** Materials and construction features specific to this offer are detailed in the attached quote # No assumptions should be made that anything not specifically listed is included Seller is bound only to the specifications and/or documents as referenced in Seller's quote

**SPECIFICATIONS:** The following specifications were received with the inquiry and reviewed in the preparation of our proposal. No other specifications, documents or contracts apply

**VALIDITY:** This offer is valid for 30 days from date issued. Quoted prices will be held firm thru shipment if order is released for manufacture within 60 days from order entry date. Otherwise, a price adjustment may be applied

**PRICE:** Quoted prices will be held firm through shipment if order is released for manufacture within 60 days from order entry date, and approved for shipment within the leadtime quoted. Otherwise, a price adjustment may be applied. Price quoted is for all items purchased and shipped at one time. In the event of a partial order, we will review and adjust the freight price accordingly. Freight charges will be those in effect at time of shipment. Due to volatility in the commodities markets, Weir Floway reserves the right to add a material surcharge on pipe, plate and other materials in line with the commodity indices. Cost surcharge must be agreed to prior to order acceptance



**PAYMENT:**

- 1 Net 30 days, from date of invoice
- 2 1 1/2% service charge on past due accounts will apply
- 3 Minimum net billing of \$ 100.00
- 4 Minimum net charge of \$ 100.00 will apply for all change orders that require additional engineering, order processing, and manufacturer's rescheduling
- 5 Due to volatility in the commodities markets, Weir Floway reserves the right to add a material surcharge on pipe, plate and other materials in line with the commodity indices. Cost surcharge must be agreed to prior to order acceptance

**FREIGHT:** Freight allowed and prepaid to first destination, continental U.S.A. Shipping terms are F O B shipping point. Export shipping and documentation requirements are an option with price adder.

**PACKAGING:** For domestic shipment via commercial carrier. Export boxing and documentation requirements are an option with price adder.

**SHIPMENT:** Approximately 26-30 weeks after receipt of approved purchase order and/or final approval of submittal and drawings.

**WARRANTY:** Warranty on Floway manufactured product 12 months after start-up, not to exceed 18 months after shipment. All other equipment is sold subject to its manufacturer warranty.

**START-UP ASSISTANCE:** Start-up/assistance not included.

**TERMS AND CONDITIONS:** This quotation is based solely upon the terms and conditions set forth herein including attachments. They supersede and reject any conflicting terms and conditions of Purchaser. Any other terms and conditions that Purchaser may propose are subject to requote.



Weir Floway -  
Fresno Main Office  
By Lee Callow



**DELAYS:** Seller will not be responsible for any delay or failure in performance of any obligations under this agreement including, but not limited to failure to meet a shipment date caused by circumstances beyond reasonable control of Seller or others or the following: Acts of God, the government or the public enemy riots, embargoes strikes or other acts of workmen, casualties or accidents, deliveries in transportation and shortage of cars, fuel, power, labor or material

**DELIVERY:** All shipments and all prices are F O B Seller's factory or service facility outlet as the case may be on:

- (1) Components and parts
- (2) Accessories except when the accessory manufacturer's policy is to allow freight provided however that shipment is made directly from such manufacturer's plant

Freight is not allowed on component assemblies and parts, but can be prepaid and charged on invoice with prior approval of seller

Seller is not liable for any damage or loss incurred during delivery; all risk of damage or loss to products after carrier takes possession shall be solely on purchaser. Purchaser shall inspect shipments upon receipt from carrier and in the event of differences shall file a claim against carrier within the time prescribed by law or contract. Seller will gladly provide assistance in securing claim adjustments upon request. Purchaser should immediately order replacements for those items damaged or lost. Such items will be billed to purchaser's regular account for payment. Reimbursement for damaged or lost items must be from carrier to purchaser on the basis of purchaser's claim.

With regard to items possibly omitted from a shipment, it shall be the responsibility of the purchaser to inspect each shipment upon receipt and notify Seller of any claimed omission within ten (10) days of receipt of such shipment. **NO CLAIMS FOR OMITTED ITEMS WILL BE ALLOWED AFTER TEN (10) DAYS OF RECEIPT OF THE SHIPMENT BY PURCHASER**

**PRICES:** All prices for products of Seller's standard design and constructed of standard material are subject to change without notice and all shipments will be invoiced at the price in effect at the time of shipment except that: A) a purchaser's order for immediate shipment postmarked prior to a given price change, and not then being held for lack of credit approval, will be invoiced at the price in effect at the time of postmark; and B) prices may be negotiated on a firm basis with or without an appropriate escalation clause. Prices are for products of Seller's standard design and constructed of standard materials and there will be no reduction of the omission of any feature. Any requests for variation in material or design must be referred to Seller's factory for special pricing. Pricing of items not covered by the Price and Data Book must be referred to Seller's factory.

Price protection on accessories will be in accordance with that given by the accessory manufacturer

Prices do not include cost of any testing or test reports, or special inspection and/or documentation, except those normally performed by Seller during the manufacturing process or the supplying of any drawings or prints except those currently on file at Seller's factory, unless expressly stated otherwise

Prices for products on non-standard design or non-standard material will be as per Seller's quote and as set forth on the face sheet

**TERMS OF PAYMENT:** Terms of payment are cash, net 30 days, from date of invoice, plus 1-1/2 percent per month service charge on overdue accounts. Payment is to be made only to WEIR FLOWAY INC and no other person or firm has authority to collect monies on our behalf. Payment by Buyer to Weir Floway, Inc. shall not be contingent upon Buyer receiving payment from the Owner or others. Prorata payments shall become due from the date on which Seller is notified of the delay. For export orders, Terms of Payment shall be by Irrevocable Letter of Credit, confirmed by a U.S. Bank, unless otherwise approved by Weir Floway, Inc..

All orders are subject to approval of Seller's credit department. If, in the sole judgment of Seller, the financial condition of buyer at any time does not justify starting or continuing production or shipment on the terms of payment specified herein, Seller may require full or partial payment in advance of production or delivery. Regardless of prices quoted, all orders will be invoiced at established minimum net charge in effect at the time of purchase

**TAXES:** The Buyer shall reimburse the Seller for any sales, use, occupation excise or similar tax arising out of the sale upon receipt of the Seller's invoice for the amount of the tax or shall provide the Seller with a tax exemption certificate acceptable to the appropriate taxing authorities

**SECURITY AGREEMENT:** Seller reserves a security interest in all goods being sold herein and shall have a security interest in all accessions to replacements for and proceeds of such goods, until the full purchase price, plus other proper charges, are paid in full by purchaser. If so requested by Seller, purchaser shall execute all security agreements, financing statements, promissory notes, and other security documents requested by Seller, in the form determined by Seller

**COSTS OF COLLECTION:** In the event Buyer defaults in payment of any amount becoming due to Seller hereunder, Buyer shall pay to Seller in addition to the amount due together with interest thereon, Seller's reasonable costs of collection including attorney's fees and legal expenses, all of which may be made a part of any judgment entered against Buyer

**GENERAL:** Should any of the terms and provisions of Buyer's order be in any way inconsistent with the terms and conditions herein, the same shall not be binding on Seller and shall not be considered applicable to the sale. No waiver, alteration, or modification of any of the provisions herein shall be binding unless in writing and signed by an executive officer of Seller at its home office in Fresno, California. The failure of seller to enforce any right Seller may have under the terms and conditions hereof or otherwise shall not constitute a waiver of such right with respect to future occasions for enforcement thereof, nor shall any such failure or failures establish any custom or usage. It shall be the obligation of every distributor, dealer, reseller or other person between Seller and the end user to whom such person resells Seller's products to make known to such end user all warranty and other provisions hereof

Seller's liability under the sales order shall not include liability for special incidental liquidated or consequential damages and shall not exceed the purchase order value. Motors, engines and other auxiliary equipment may be shipped and billed separately from the pumps

The Sales Order is subject to review and acceptance of Seller's home office in Fresno, California and shall be interpreted and applied in conformity with the laws of the State of California

Any legal claim, suit, proceeding, or action arising out of or related to this agreement shall be brought in Fresno, California



## TERMS AND CONDITIONS OF SALE

**WARRANTY:** Each product manufactured by Weir Floway, Inc. ("Seller") is warranted to be free of defects in material and workmanship for a period of one (1) year after the product is first put into operation or eighteen (18) months after date of shipment whichever is less, when the product is in the hands of the original user and the product has been used properly for the purpose intended; and provided that Seller shall be notified within thirty (30) days from the earliest date on which an alleged defect could have been discovered, and further that the defective product(s) or part(s) shall be returned to the Seller in accordance with the terms of the "RETURN OF EQUIPMENT" section below. Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by Weir Floway, Inc. if any, are subject to laboratory tests corrected for field performance. Due to inaccuracies of field testing, if a conflict arises between the results of field testing conducted by or for the user, and laboratory tests corrected for field performance, the latter shall control. No equipment shall be furnished for acceptance based on results of field testing unless such tests are made in accordance with the engineering practices outlined in Section 6.1 through 6.12 (or successor provisions) of the American National Standards Institute Bulletin ANSI/WWA E101 latest edition. Such performance guarantees are void if impellers are trimmed by anyone other than factory personnel or those authorized by Seller. Further, guarantees are only for the design point specified and relate only to performance at the time of installation. All accessories and other equipment not manufactured by Weir Floway, Inc. are warranted only for the period and to the extent of the original manufacturer's warranty, and shall be subject to all of the terms and conditions of such warranty. **THERE ARE NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The sole and exclusive remedy for breach of any and all warranties with respect to any product shall be replacement or repair at Seller's election, f.o.b. factory, of such products and/or parts as prove defective. There shall be no further liability, whether based on warranty, negligence or otherwise; no claims for labor or consequential damages shall be payable.

Unless Buyer clearly shows that none of the following were a cause of an alleged defect, all warranties are void if:

- (a) Pump is handling liquids other than clear, fresh nonaerated water at a temperature not exceeding 85 degrees F, or other such liquids and/or temperature contrary to those specified by other Sales Order;
- (b) If pump has been handling abrasive material;
- (c) If pump is slow due to low voltage or other reason beyond control of Seller;
- (d) If pump is installed in a well or sump which is not sufficiently straight and plumb and of sufficient diameter to allow the pump to hang free and plumb;
- (e) If pump is damaged from electrolysis, graphitization, corrosion or erosion;
- (f) If air or vapor is allowed to enter the pump section;
- (g) Parts not furnished by Seller are used in head, bowl or column assembly; or
- (h) If a foot valve is used without consent of Seller on any unit except the "WATERMASTER".

Any controversy or claim arising out of or relating to the foregoing warranty, or the breach thereof shall be settled by arbitration in accord with the Commercial Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof. The Parties hereto specifically agree that the provisions of Section 1283.05 of the Code of Civil Procedure of the State of California are incorporated into, made a part of and made applicable to any arbitration hereunder where the aggregate amount in controversy exceeds Twenty-Five Thousand Dollars (\$25,000.00) exclusive of costs, expenses and fees. The parties recognize that the resolution of any controversy or claim hereunder will necessitate testimony by Seller's engineers, all of whom are employed at Seller's home office in Fresno, California. The parties therefore agree that the most convenient place for arbitration is Fresno County, California and that any arbitration hereunder shall be in Fresno County, California.

**ASSIGNMENT:** None of the Buyer's rights under any order or agreement shall be assigned by the purchaser or any other person, without the Seller's prior written approval.

**QUOTATIONS:** Formal written quotations subject to change without notice, otherwise firm for 30 days after date thereof, unless otherwise stipulated by written quotation of Seller.

**RETURN OF EQUIPMENT:** No equipment shall be returned to Seller without a Returned Material Authorization (RMA) and shipping instructions first having been obtained from the Seller.

In the event such authorization is granted by Seller, the purchaser must pay the charges in full for transportation to the Seller from the purchaser and return and clearly mark each item with the appropriate RMA number.

Credit allowed for new undamaged equipment of current standard design will be reduced by a restocking charge in effect at the time the equipment is returned. Equipment which, in the Seller's opinion, shows tool marks or effects of use -- however slight -- will not be accepted for credit. Authorization will not be given for return of material which would in the opinion of the Seller result in an excess in the amount of stock normally carried by the Seller.

For equipment not manufactured by the Seller, the only credit as may be allowed by the manufacturer of such equipment, minus all freight and other expenses incurred by the Seller in handling such equipment.

**CANCELLATION AND/OR CHANGES:** Orders shall not be subject to cancellation by purchaser unless agreed to in writing by Seller. No cancellation will be accepted by Seller except upon payment to Seller of a reasonable charge, as determined by Seller to cover out-of-pocket costs and all other damages incurred by Seller. A minimum cancellation charge of 5% of the order value will be billed for cancellation of any order on "hold for approval" which has not been released for production. Any order cancelled after release to production will be subject to a cancellation charge equal to the amount of materials and labor performed on the order OR 25% of the order value, whichever is greater. Modifications or changes to existing orders must be agreed to in writing by Seller and will be subject to a minimum administration charge of \$100.00 plus the net addition or deduction of material and labor.

**DOMESTIC & EXPORT PACKAGING:** Normal domestic for rail or motor shipment at no additional charge, except when pumps are shipped as units. Please refer to component pricing section for additional charges. Shipment is defined as F.O.B. Seller's factory or service facility outlet.

Commercial export packaging will be charged for at the rate of an additional five percent of the net price of the shipment. Outer column is normally shipped uncrated but with thread protectors on the ends without couplings. If crating is required for outer column contact factory for pricing.



## Customer Price Sheet

Customer: Powell Kugler, Inc  
 Project Name: C43 RESERVOIR PUMP STATION  
 Item Number: 001  
 Service:  
 Pump Type: Barrel Pump

Date: May 18 2006  
 Quote No.: 19934 Rev: A

Totals	
Unit Price	\$ 368,946
Unit Freight	\$ 14608 (NOT included in Unit Price)
Quantity	3
Total Price ( less frt. )	\$ 1,106,838
Grand Total ( incl. frt. )	\$ 1,151,112 <del>\$ 1,170,447</del>
Price shown is your net cost <u>3</u> <u>incl. frt.</u>	

Conditions	
Condition Point:	22,440.0 USgpm@ 40.00 ft TDH
Pumpage:	Water - Clean
Specific Gravity	0.998 SG
Temperature	68.00 deg F
Pump Speed:	590 rpm
Overall Pump Length:	40.00 ft

Pump	
3	<p>Product lube</p> <p>1 - 1 STG SBRM 750L BOWL ASSEMBLY *</p> <p>316L SS bowls (ASTM A743-89 Gr CF-3M)</p> <p>Flanged bowls</p> <p>Bowl bolting - 316SS (ASTM F593 Gr CW1) (ASTM F593 Gr CW1)</p> <p>316L SS impellers (ASTM A743-89 Gr CF-3M)</p> <p>Finished Impellers</p> <p>Dynamic balanced impellers</p> <p>Double keyed impellers</p> <p>Bowl shaft 3 6875'</p> <p>17-4PH cond H1150 bowl shaft (ASTM A564-89 Type 630, Cond H1150)</p> <p>Zincless bronze bowl bearings (ASTM B505-91 Alloy 937)</p> <p>Suction bell</p> <p>Bowls fully assembled</p> <p>Column 30" - (0- 20' and 2- 10' and 2- 5' and 1 - 3 45 Top)</p> <p>316 L SS COLUMN PIPE *</p> <p>Flanged (75#)</p> <p>316SS (F593-CW1) column flange bolting</p> <p>Lineshaft 2 4375"</p> <p>17-4PH cond H1150 lineshaft (ASTM A564-89 Type 630 Cond H1150)</p> <p>17-4PH cond H1150 lineshaft coupling (ASTM A564-89 Type 630 Cond H1150)</p> <p>Steel bearing retainer (ASTM A216-WCB)</p> <p>Discharge head material - Steel (A516-Gr 70 plt A105 flg A53-Gr B pipe)</p> <p>30 X 30.5 X 60 VF DISCHARGE HEAD *</p> <p>150# flange (Std std)</p> <p>Standard stuffing box</p> <p>Bronze stuffing box bearing (ASTM B505-91 Alloy 932)</p>



## Customer Price Sheet

Customer: Powell Kugler, Inc  
 Project Name: C43 RESERVOIR PUMP STATION  
 Item Number: 001  
 Service:  
 Pump Type: Barrel Pump

Date: May 18 2006  
 Quote No : 19934 Rev : A

### Pump

Qty	Description
	Type CPAT flanged adjustable non-spacer coupling Coupling size 3125 Special coupling guard Discharge head extra height Standard pressure suction barrel 60" diameter suction barrel x 40 ft ( 2 PC BARREL CONSTRUCTION ) * 48" SUCTION FLANGE * 150# suction flange Flow direction vanes Non witnessed performance test (bowl assembly) - 3 units Documentation - loose Carboguard epoxy coating - Disch head - interior and exterior Sherwin Williams KEM AQUA 70P - Red Oxide - Column exterior only Sherwin Williams KEM AQUA 70P - Red Oxide - Bowls exterior only Carboguard epoxy coating - Barrel - interior and exterior Sub-assembled components only (bowl head and column lengths separate) Domestic packaging Standard shipping mode

### Driver

Qty	Description
3	Driver type - Motor 300 HP USEM WP-1 3/60/460V 710 RPM VSS MOTOR * Vertical solid shaft motor High thrust Motor bearing life - 1 yr min / 5 yr average Motor service factor 1.0 Across the line starting Motor BD 24.5 in No non-reverse device on motor Motor suitable for elevation <= 3300' Motor suitable for ambient temperature <= 104 F (40 C) Not UL labeled Motor domestic packaging Motor NOT to be shipped to Floway factory

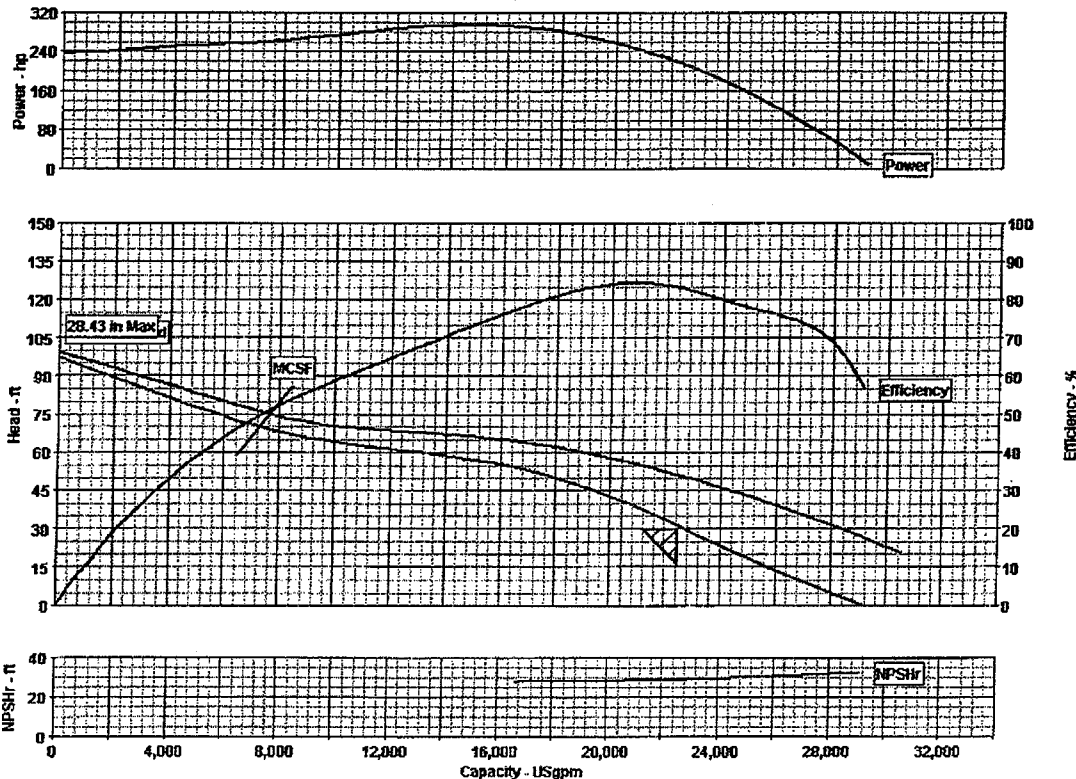
## Pump Performance Datasheet

Customer	: Powell Kugler Inc	Quote number	: 19934
Customer reference	:	Pump size	: SBRM 750L
Item number	: 001	Stages	: 1
Service	:	Based on curve number	: SBRM750L
Quantity of pumps	: 3	Date last saved	: 18 May 2006 5:44:28 PM

Operating Conditions		Liquid	
Flow, rated	: 22,440.0 USgpm	Liquid type	: Water - Clean
Head, rated (requested)	: 30.00 ft	Additional liquid description	:
Head, rated (actual)	: 31.31 ft	Solids diameter, max	: 0.00 in
Suction pressure, rated / max	: 0.00 / 0.00 psi g	Temperature max	: 68.00 deg F
NPSH available, rated	: Ample	Fluid density rated / max	: 0.998 / 0.998 SG
Frequency	: 60 Hz	Viscosity, rated	: 1.00 cP

Performance		Material	
Pump speed, rated	: 710 rpm	Material requested	: 316L Stainless Steel/316L SS
Impeller diameter, rated	: 27.09 in	Material selected	: 316L Stainless Steel/316L SS
Impeller diameter, maximum	: 28.43 in	Pressure Data	
Impeller diameter, minimum	: 27.09 in	Maximum working pressure	: 42.09 psi g
Efficiency (bowl / pump)	: 83.09 / 73.70 %	Maximum allowable working pressure	: 219.7 psi g
NPSH required / margin required	: 28.78 / 0.00 ft	Maximum allowable suction pressure	: N/A
Specific speed / Suction specific speed	: 6 564 / 8 795 US units	Hydrostatic test pressure	: N/A
MCSF	: 7,282.8 USgpm	Driver & Power Data	
Head, maximum, rated diameter	: 97.26 ft	Driver sizing specification	: Maximum power
Head rise to shutoff	: 224.19 %	Margin over specification	: 0.00 %
Flow best eff point (BEP)	: 20,865.1 USgpm	Service factor	: 1.25
Flow ratio (rated / BEP)	: 107.55 %	Power, hydraulic	: 177 hp
Diameter ratio (rated / max)	: 95.29 %	Power (bowl / pump)	: 213 / 214 hp
Head ratio (rated dia / max dia)	: 58.72 %	Power, maximum, rated diameter	: 294 hp
Viscous coefficients (CQ / CH / CE)	: 1.00 / 1.00 / 1.00	Minimum recommended motor rating	: 300 hp / 224 kW
Selection status	: Near miss		

Best performance. Corrected for construction and viscosity



Computed by DRITRINKS Date 5/20/06  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_  
 Approved by \_\_\_\_\_ Date \_\_\_\_\_

<u>MATERIAL - 96" Ø STEEL PIPE</u>			
# 754.25 / LF	34" PIPE	1/3/05	# 1257 / TRUCK
26.61	FREIGHT		
113.14	PRICE INCREASE 1/3/05 TO 5/06 15%		
# 894.00 / LF	TOTAL MATERIAL COST FOR 34" PIPE		
# 968.00 / LF	FACTOR TO INCREASE PIPE SIZE		
	TO 96" $\left(\frac{96}{34}\right)^{1.6} \times \$894 =$		
<u>USE FOR MATERIAL COST OF 96" PIPE #970/LF</u>			
425 LF $\times$ 9 LOADS $\times$ #1257 = # 26.61 / LF FREIGHT			
425			
<u>MATERIAL - 72" Ø STEEL PIPE</u>			
FROM ABOVE #894/LF $\times \left(\frac{72}{34}\right)^{1.6} =$ #815.02 / LF			
FACTOR TO REDUCE PIPE SIZE			
<u>USE FOR MATERIAL COST OF 72" PIPE #815/LF</u>			

Jim,

I have sized the AquaGuard Model AG-MN-T 4' x 30' x 85 DEG x 6mm screen  
The budget price for this screen is \$160,000.

I have attached the general sales drawing and sizing sheet

If you have any questions please let me know

Sincerely,

Rob

-----Original Message-----

**From:** Jim Wahl [mailto:jwahl@mackcompany-fl.com]

**Sent:** Wednesday, May 17, 2006 9:10 AM

**To:** Rob Troupe

**Cc:** Russ Cook

**Subject:** South Florida Water Management District

Rob,

Stanley Consultants is designing a stormwater reservoir near Ft. Myers. A large pump station is part of the project. The big pumps are diesel driven using cooling water. The cooling water will be 200 to 5000 gpm depending on how many cooling water pumps are used. Water is pulled from the reservoir through a channel. The channel will be about 25 feet deep and 4 to 6 feet wide. They plan to put a coarse mechanical screen (Duperon) first followed by a fine screen (Parkson). The water is just surface water runoff during large rain events. They want a recommendation for an AquaGuard.

Jim

5/22/2006



**Jensen, Glenn**

---

**From:** Dreyer, Daniel  
**Sent:** Monday, May 22, 2006 3:28 PM  
**To:** Jensen, Glenn  
**Cc:** Brugger, Wayne  
**Subject:** FW: South Florida Water Management District

Glenn:

FYI - budget estimate for the additional trash screen at teh pump station. This is in addition to the screen and trash rake you already have information for

Please call if you have questions

Dan

---

**From:** Roeth, Brad  
**Sent:** Monday, May 22, 2006 2:58 PM  
**To:** Dreyer, Daniel  
**Subject:** FW: South Florida Water Management District

I guess I misspoke regarding the screen estimate. Here's an estimate for the screen at \$160,000. This is for a 4' screen. Sounds like you are showing a 6' screen. and flow-wise we only need a 2' screen. I'm not too concerned for 30%, as long as we have it covered in the cost estimate. But we should be careful not to call it a 4' screen in the cost estimate.

On another item, the lubrication pumps were initially sized at 20 gpm. This was increased to 80 gpm after my review. It is really a small item, so it doesn't affect cost much. But we should be careful that the cost estimate doesn't call it a 20 gpm pump.

Brad

---

**From:** Jim Wahl [mailto:jwahl@mackcompany-fl.com]  
**Sent:** Monday, May 22, 2006 3:49 PM  
**To:** Roeth, Brad  
**Subject:** FW: South Florida Water Management District

Brad,  
Here is Parkson's recommendation for the screen we discussed. Note the water levels and head loss in the sizing. This screen and channel can handle a lot more than 5000 gpm.

Please call me if you have any questions  
Jim Wahl

---

**From:** Rob Troupe [mailto:RTroupe@parkson.com]  
**Sent:** Wednesday, May 17, 2006 5:43 PM  
**To:** Jim Wahl  
**Cc:** Russ Cook  
**Subject:** RE: South Florida Water Management District

5/22/2006

Excavation and Backfilling Quantities

Description	Length (ft) - (in)	Width / Th (ft) - (in)	Depth / Ht. (ft) - (in)	Number	QTY	Volume (Yd)	Unit Weight	Weight (Short-ton)
	-	-	-		0 0	0 0	150	0 0
<b>Excavation</b>								
EL 17 00 to EL -3 00 <b>REUSE AS BACKFILL</b>	358 - 0 00	235 - 0 00	20 - 0 00	1	1682600 0	582318 5	DRY	
EL -3 00 to EL -32 00								
Pump Station	278 - 0 00	107 - 0 00	29 - 0 00	1	862634 0	31949 4		
Suction Basin	213 - 0 00	48 - 0 00	29 - 0 00	1	296496 0	10981 3	WET	
Total						405249 3		
<b>Cofferdam</b>								
Sheet Pile/Tiebacks								
Sheet Pile	866 - 0 00	1 - 0 00	44 - 0 00	1		52 FT	24.17	480 5
Tie Rods	30 - 0 00	1 - 0 00	1 - 0 00	87	2598 0	-	7.65	207
Wales	866 - 0 00	1 - 0 00	1 - 0 00	2	1732 0	-	25	43
Misc. Steel								
Anchor Wall								
Concrete	1106 - 0 00	2 - 0 00	7 - 6 00	1	16590 0	614 4		
Add for waste						30 7		
Total Concrete						6452		
Anchor Wall Reinforcing					51 4		490	12 6
Tremie Concrete (EL -32 00 to EL -22 00)								
Pump Station	278 - 0 00	107 - 0 00	10 - 0 00	1	297460 0	11017 0		
Suction Basin	213 - 0 00	48 - 0 00	10 - 0 00	1	102240 0	3786 7		
Total						14803 7		
<b>Backfilling</b>								
EL -22 00 to EL -3 00								
Pump Station	278 - 0 00	107 - 0 00	19 - 0 00	1	565174 0	20932 4		
Suction Basin	213 - 0 00	48 - 0 00	19 - 0 00	1	194256 0	7194 7		
Subtract Volume Displaced by Base Slab	193 - 0 00	108 - 0 00	6 - 0 00	-1	-125064 0	-4632 0		
Subtract Volume Displaced by Wall Perimeter	185 - 0 00	118 - 0 00	13 - 0 00	-1	-283790 0	-10510 7		
EL -3 00 to EL 7 00								
Total Volume above EL -3 00	358 - 0 00	235 - 0 00	10 - 0 00	1	841300 0	31159 3		
Subtract Volume Displaced by Wall Perimeter	185 - 0 00	118 - 0 00	10 - 0 00	-1	-218300 0	-8085 2		
EL 7 00 to EL 17 00								
Total Volume Above EL 7 00	358 - 0 00	235 - 0 00	10 - 0 00	1	841300 0	31159 3		
Subtract Volume Displaced by Base Slab	258 - 0 00	87 - 0 00	3 - 0 00	-1	-67338 0	-2494 0		
Subtract Volume Displaced by Pump Station	252 - 0 00	84 - 0 00	7 - 0 00	-1	-148176 0	-5488 0		
Subtract Volume Displaced by Suction Basin	185 - 0 00	58 - 0 00	7 - 0 00	-1	-75110 0	-2781 9		
Subtotal						56453 8		
Add for Shrinkage (20%)						11290 8		
Total Backfill						67744 3		

WASTE  
EXCAVATION

HAUL IN  
ON SITE

WELL POINT 12 66 LF

# HVAC

ITEM	Manufacturer	Quantity	Unit Price	Delivery Cost	Delivery Time
Roll Filter housing: ARV14V160 Vertical type	BLC Industries	8			
Roll Filter Media: Series SRM 1/2" Polyester - synthetic scrim backed	BLC Industries	8			
Louver: EME6625D (Dade County) Hurricane type 90" X 48" W	Ruskin	64	\$6,250.00/EA	\$2,890.00	8-9wks
Louver: ELF635DMP Wind-drive rain resistant type 78" X 78" W	Ruskin	8	\$2,950.00		
Louver: ELF635DMP Wind-drive rain resistant type 54" X 54" W	Ruskin	4	\$1,400.00		7-8wks
Louver: ELF635DMP Wind-drive rain resistant type 60" X 60" W	Ruskin	2	\$800.00		
Fan: SBS-3H72-150 - Supply type	Greenheck	8	\$900.00		
Fan: SBCE-3L72-150 - Exhaust type	Greenheck	8			
Fan: SBCE-3H36-50 - Exhaust type	Greenheck	2			
Fan: SP-B80 - Exhaust type	Greenheck	1			
Fan: SQ-85-D - Exhaust type	Greenheck	1			
Air handling unit: TWE031E130A	Trane	1			3wks
Air cooled condensing unit: TTP018C100A	Trane	1			
Air cooled condensing unit: TTP024C100A	Trane	1	\$4,000.00		
Plenum: Supply Fans - TG-type tougue and groove 206SQ.FTx \$16.50	McGill	8	\$39,072.00		
Plenum: Exhaust Fans - TG-type tougue and groove 96SQ.FTx \$16.50	McGill	2	\$3,168.00	\$1,400.00	4-6wks
Plenum door: 24w X 36h	McGill	2	\$600.00		
Sheet metal ductwork: Interior lined insulation	McGill	671.5lbs			
Air devices: grilles, diffusers	Titus		\$735.00		5-6wks
Plumbing: water closet	American Standard	2	\$350.00		
Plumbing: lavatory	American Standard	2	\$250.00		
Plumbing: shower	American Standard	1	\$550.00		
Plumbing: service sink	American Standard	1	\$650.00		
Plumbing: kitchen sink	American Standard	2	\$250.00		
Plumbing: floor drain	American Standard	3	\$100.00		
Plumbing: water heater 40gal	State	1	\$300.00		
Plumbing: Sanitary/Vent ABS piping 4"-150', less than 4"-50'					
Plumbing: Domestic water piping 2"-150', less than 2"-50'					

MISSILE BARRIER 6.5 X 6.5 X 8 = 338  
 4.5 X 4.5 X 4 = 81  
 5 X 5 X 2 = 50  
 469sf

C



Greenheck 05/10/06

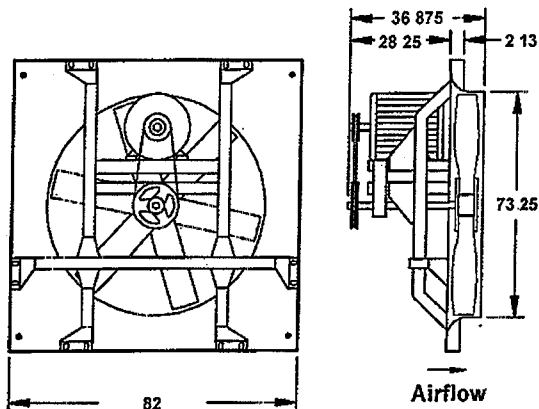
JOB: flfan

Fan

MARK: exhaust

## SBCE

Sidewall Cast Aluminum Belt Drive Exhaust Fan



### CONSTRUCTION FEATURES

• Galvanized steel fan panel • Die formed, galvanized steel drive frame assembly • Cast aluminum airfoil blade propeller • Adjustable motor pulley • Ball bearing motors • Fan shaft mounted in ball bearing pillow blocks • Static resistant belts • Corrosion resistant fasteners

### SELECTED OPTIONS & ACCESSORIES

Bearings with Grease Fittings  
Two Groove Pulley and Belt System  
Energy Efficient Motor meets EPACT and NEMA 1210

NOTES: All dimensions shown are in units of inches  
Fan weight is without accessories

### DIMENSIONS

Approx. Fan Weight (lb)	Recommended Roof/Wall Opening (in)
1,300	74.5 x 74.5

### PERFORMANCE (Elevation ft = 0, Airstream Temperature °F = 70)

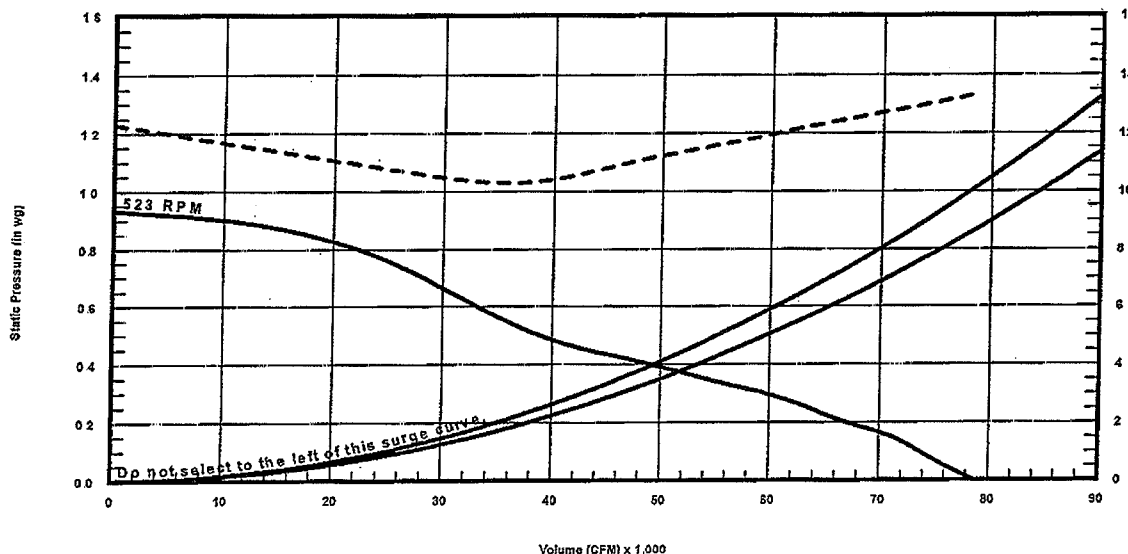
Qty	Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Motor Information					
						Size (hp)	V/C/P	Encl:	Motor RPM:	Windings	FLA (A)
1	SBCE-3L72-100	51,700	0.375	523	11.36	10	460/60/3	ODP	1725	1	14.0

### SOUND

Inlet Sound Power by Octave Band								Lwa	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
107	105	101	97	93	88	84	82	99	88	59

FLA - Based on tables 150 or 148 of National Electrical Code 2002

Lwa - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft. Sones calculated using AMCA 301 at 5.0 ft.





Greenheck 05/10/06

JOB: f1fan

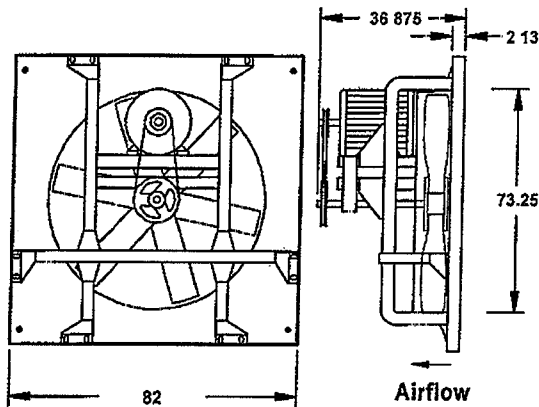
③ - 2

Fan

MARK: 001

## SBS

### Sidewall Belt Drive Supply Fan



Tag: 001

#### CONSTRUCTION FEATURES

- Galvanized steel fan panel • Die formed, galvanized steel drive frame assembly • Fabricated steel propeller for Levels 1 and 2, welded and painted steel for Level 3 • Adjustable motor pulley • Ball bearing motors • Fan shaft mounted in ball bearing pillow blocks • Static resistant belts • Corrosion resistant fasteners

#### SELECTED OPTIONS & ACCESSORIES

- Bearings with Grease Fittings
- Two Groove Pulley and Belt System
- Energy Efficient Motor meets EPACT and NEMA 1210

NOTES: All dimensions shown are in units of inches  
Fan weight is without accessories

#### DIMENSIONS

Approx. Fan Weight (lb)	Recommended Roof/Wall Opening (in)
1,050	74.5 x 74.5

PERFORMANCE - (Elevation ft = 0, Airstream Temperature °F = 70)

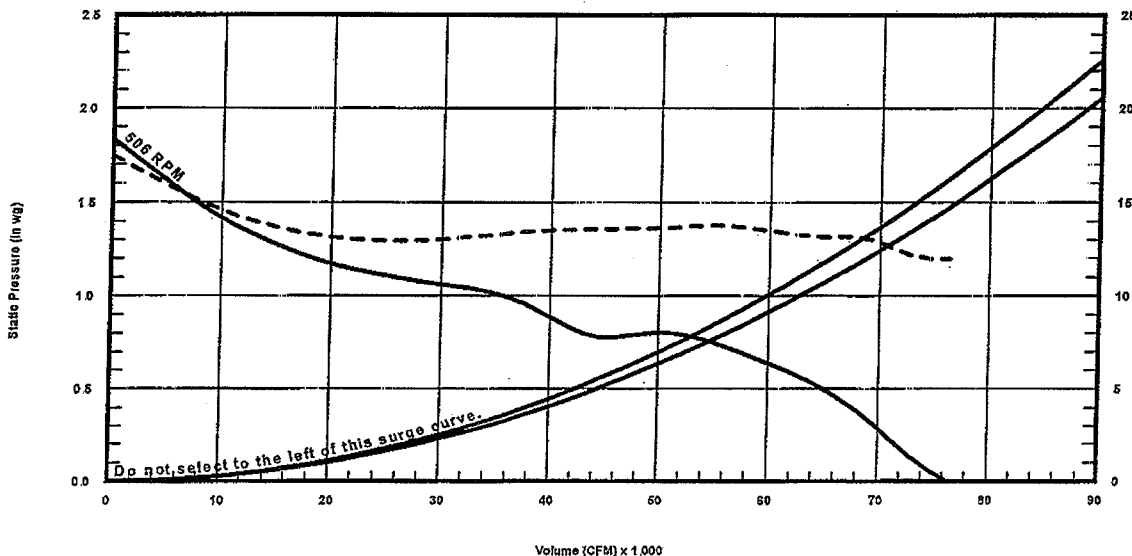
Qty	Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Motor Information					
						Size (hp)	V/C/P	Encl:	Motor RPM:	Windings	FLA (A)
1	SBS-3H72-150	54,400	0.75	506	13.74	15	460/60/3	ODP	1725	1	21.0

#### SOUND

Inlet Sound Power by Octave Band								Lwa	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
105	103	100	96	91	88	85	83	98	87	56

FLA - Based on tables 150 or 148 of National Electrical Code 2002

Lwa - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5.0 ft. Sones calculated using AMCA 301 at 5.0 ft





**Greenheck**

05/10/06

JOB: 17300 gallery

Fan and Ventilator

MARK: pipe gallery

**SBCE**

5

2-20

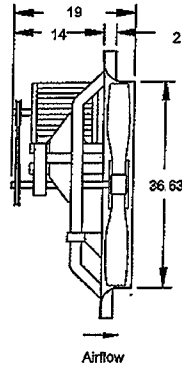
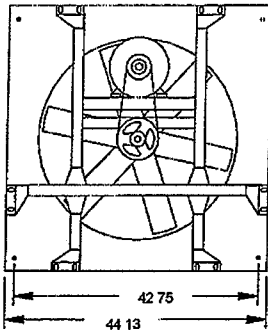
## Sidewall Cast Aluminum Belt Drive Exhaust Fan

### CONSTRUCTION FEATURES

- Galvanized steel fan panel • Die formed, galvanized steel drive frame assembly • Cast aluminum airfoil blade propeller • Adjustable motor pulley • Ball bearing motors • Fan shaft mounted in ball bearing pillow blocks • Static resistant belts • Corrosio

### SELECTED OPTIONS & ACCESSORIES

Energy Efficient Motor meets EPACT and NEMA 1210  
Two Groove Pulley and Belt System  
Bearings with Grease Fittings



NOTES: All dimensions shown are in units of inches

Fan weight is without accessories

#### DIMENSIONS

Damper Size (in.)	Approx. Fan Weight (lb.)
38 x 38	260

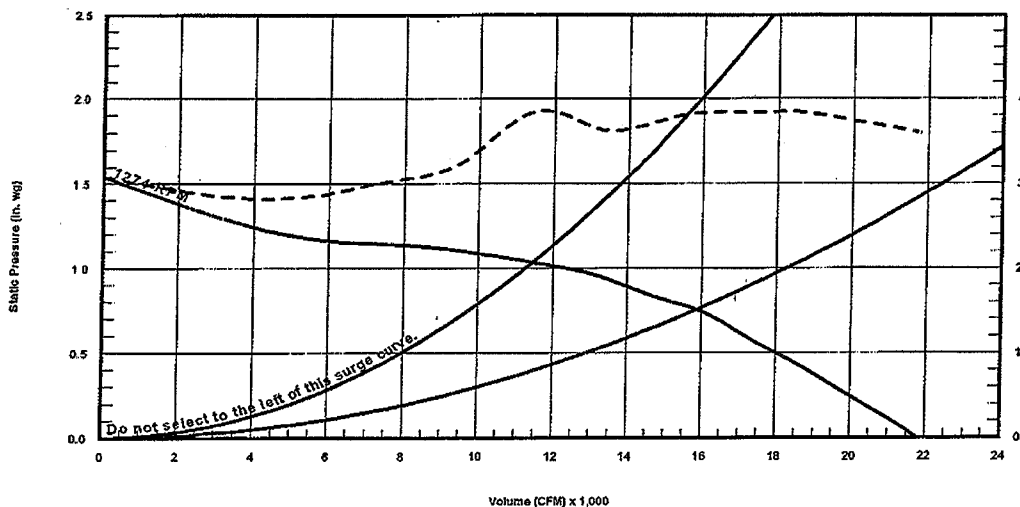
#### PERFORMANCE (Elevation ft. = 0, Airstream Temperature °F = 70)

Qty	Model	Volume (CFM)	SP (in wg)	FRPM	Operating Power (hp)	Motor Information				
						Size (hp.)	V/C/P	Enclosure	Motor RPM:	Windings
1	SBCE-3H36-50	15,834	0.75	1,274	3.81	5	460/60/3	ODP	1725	1

#### SOUND

Inlet Sound Power by Octave Band								LWA	dBA	Sones
62.5	125	250	500	1000	2000	4000	8000			
88	90	93	93	94	91	83	77	97	86	45

LWA - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB  
attenuation per octave band at 50 ft. Sones calculated using



Power (hp.) (dashed lines use this axis)

**Lange, Alan**

---

**From:** Brad Forret [brad@products-inc.com]

**Sent:** Tuesday, May 23, 2006 10:02 AM

**To:** Lange, Alan

**Subject:** C43 Pump Station

Alan,

Here is the information you requested

Budget pricing for 21 fans per attached submittal is \$75,701.00

Current lead time for all the fans are approximately 3 weeks

Please let me know if you have any questions.

Thanks,

Brad Forret  
Products, Inc  
1429 2nd Avenue  
Des Moines, IA 50314  
515-288-5738 Phone  
515-288-2574 Fax  
[brad@products-inc.com](mailto:brad@products-inc.com)

5/24/2006



**PRODUCT  
DATA**  
**AUTO-LINE™**  
**SERIES ARV**  
**PD-ALARV-03A**  
**JANUARY 2003**

**AUTOMATIC  
AIR  
FILTRATION  
EQUIPMENT**

**AUTO-LINE™**  
**SERIES ARV**  
**AUTOROLL - VERTICAL**

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Engineered by dedicated personnel with years of experience and hands-on application expertise, the AUTO-LINE Vertical AutoRoll is designed for the marketplace of tomorrow. Manufactured with innovative features and options - for a wide range of uses requiring plenum or open-air return systems - the quality, practicality and economy of this design are immediately obvious to those involved in the purchase, installation and application of air filtration equipment.

BLC's Vertical AutoRoll has been designed as a completely factory assembled unit. This unit requires only minimal field labor to install. A wide variety of system CFM capacities along with easy to handle section widths and heights allow for quick installation. Complete, 100% factory assembly reduces expensive field labor and cuts supervision costs.

Rugged, modular AutoRoll construction that is compatible to HVAC system installation is another objective in the design of the Vertical Automatic Filter. The main frame is die formed into a channel section that incorporates the media guides as an integral part of the frame. When joined to the top and bottom panels, this provides rigid structural support that prevents the twisting or bowing of the unit during shipment or at installation.

The entire unit is constructed of 16 gauge aluminized steel, offering improved product appearance and better corrosion resistance when

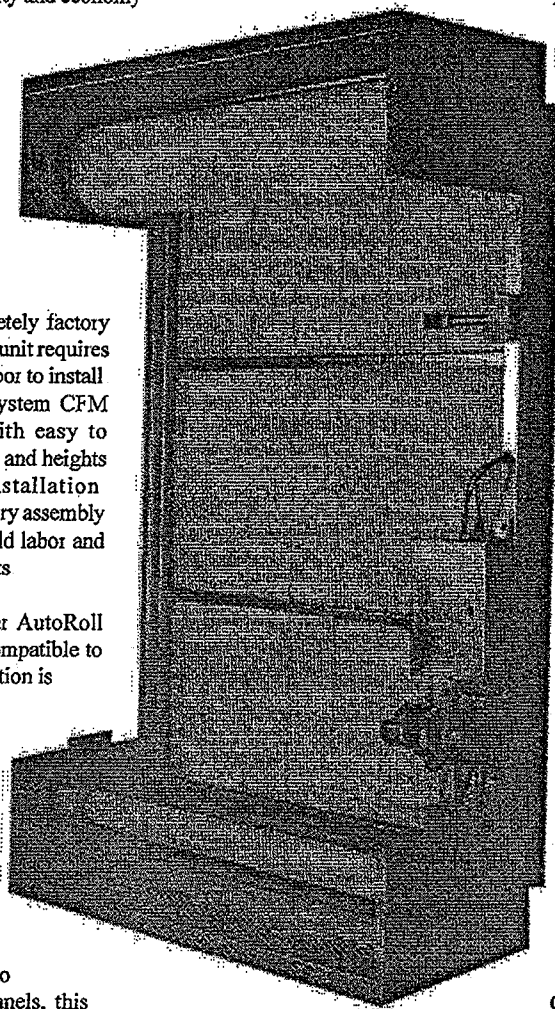
compared to galvanized steel. Aluminized steel is used in automotive mufflers, tail pipes, oven liners and incinerators where heat and condensation create the worst case conditions for corrosion to form. Metals that withstand these conditions and also conform to ASIM Specification

A463 tolerate greater temperatures and are more expensive than lesser ones. Manufacturing the Vertical AutoRoll from 16 gauge aluminized steel emphasizes BLC's total commitment to quality.

Moreover, the main objective in the design of the AUTO-LINE Vertical AutoRoll is to provide the end user with a product that is totally reliable, economical, practical and easy to use. This unit requires only the replacement of the exhausted media roll when necessary. All of the drive components are permanently lubricated — for life! The rollers and bearing surfaces use oil lite bushings and high impact plastics.

Components are carefully manufactured to exacting tolerances. And, after completion, the entire unit undergoes a rigorous inspection by BLC before shipping. All of this results in a product that provides minimal installation time, reduced maintenance costs and a dependable, warranted service life.

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**Corporate Headquarters**

P O Box 14187  
Louisville, Kentucky 40214  
Phone: (502) 366-6002  
Fax: (502) 366-6255

E-Mail: [askus@blcind.com](mailto:askus@blcind.com)

**BLC-West**

Phone: (480) 839-5333  
Fax: (480) 839-1584

**[www.blcind.com](http://www.blcind.com)**

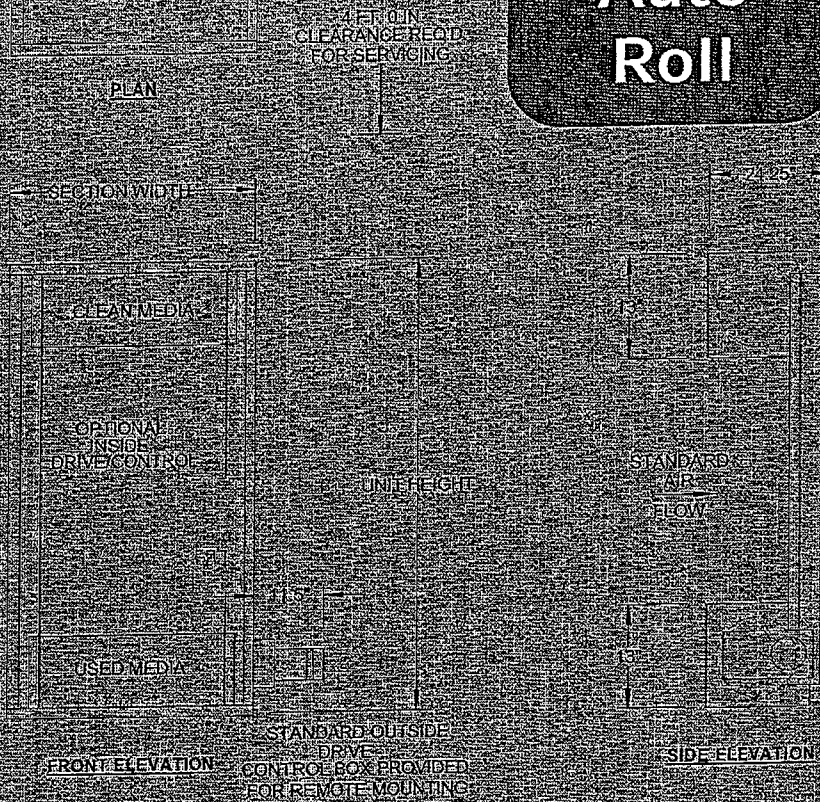
We reserve the right to make changes in product design and product specifications without prior notice or obligation.

**BLC INDUSTRIES INC.**

*Breathe Easy. We Have The Line On Air Filtration*

# VERTICAL

## Auto Roll



MODEL NUMBER KEY  
ARV05V10

## Capacity Chart

In CFM @ 500 FPM through net effective Media area.

ARV - Auto Roll Vertical  
05 - Width Code  
V - Vertical (Model)  
10 - Unit Height in inches

WIDTH CODE		02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
SECTION WIDTHS		1-2'	1-3'	1-4'	1-5'	1-6'	1-3'	2-4'	1-4'	2-5'	1-5'	2-6'	1-5'	2-5'	3-5'	2-5'	1-5'	3-6'	1-4'	4-5'
MODEL & UNIT HEIGHT IN INCHES	V060	3300	5035	7120	9200	11285	12155	14240	16320	18400	20485	22570	23440	25520	27600	29685	31770	33855	34720	36800
	V085	3630	5540	7820	10120	12415	13360	15660	17950	20240	22535	24830	25780	28070	30360	32655	34950	37245	38190	40480
	V070	3960	6040	8540	11040	13540	14580	17080	19580	22080	24580	27080	28120	30620	33120	35620	38120	40620	41660	44160
	V075	4290	6545	9255	11960	14670	15800	18510	21215	23920	26630	29340	30470	33175	35880	38590	41300	44010	45135	47840
	V080	4620	7050	9965	12880	15800	17015	19930	22845	25760	28680	31600	32810	35725	38640	41560	44480	47400	48605	51520
	V085	4950	7555	10680	13800	16930	18235	21360	24480	27600	30730	33860	35160	38280	41400	44530	47660	50790	52080	55200
	V090	5280	8055	11390	14725	18055	19445	22780	26115	29450	32780	36110	37505	40840	44175	47505	50835	54165	55565	58900
	V095	5610	8560	12100	15645	19185	20660	24200	27745	31290	34830	38370	39845	43390	46935	50475	54015	57555	59035	62580
	V100	5940	9065	12815	16565	20315	21880	25630	29380	33130	36880	40630	42195	45945	49695	53445	57195	60945	62510	66260
	V105	6270	9565	13525	17485	21440	23090	27050	31010	34970	38925	42880	44535	48495	52455	56410	60365	64320	66695	69940
	V110	6600	10070	14240	18405	22570	24310	28480	32645	36810	40975	45140	46885	51050	55215	59380	63545	67710	69455	73620
	V115	6930	10575	14950	19325	23700	25525	29900	34275	38650	43025	47400	49225	53600	57975	62350	66725	71100	72925	77300
	V120	7260	11075	15660	20245	24830	26735	31320	35905	40490	45075	49660	51565	56150	60735	65320	69905	74490	76395	80980
	V125	7590	11580	16370	21165	25955	27950	32740	37535	42330	47120	51910	53905	58700	63495	68285	73075	77865	79865	84660
	V130	7920	12085	17085	22085	27085	29170	34170	39170	44170	49170	54170	56255	61255	66255	71255	76255	81255	83340	88340
	V135	8250	12590	17795	23005	28215	30385	35590	40800	46010	51220	56430	58595	63805	69015	74225	79435	84645	86810	92020
	V140	8580	13090	18510	23925	29340	31600	37020	42435	47850	53265	58680	60945	66360	71775	77190	82605	88020	90285	95700
	V145	8910	13595	19220	24845	30470	32815	38440	44065	49690	55315	60940	63285	68910	74535	80160	85785	91410	93755	99380
	V150	9240	14100	19930	25765	31600	34030	39860	45695	51530	57365	63200	65625	71460	77295	83130	88965	94800	97255	103060
	V155	9565	14605	20645	26685	32725	35245	41290	47330	53370	59410	65450	67975	74015	80055	86095	92135	98175	100700	106740
	V160	9895	15105	21355	27605	33855	36460	42710	48960	55210	61460	67710	70315	76565	82815	89065	95315	101565	104170	110420

**PRODUCT DATA**  
**FILTER-LINE™**  
**SERIES SRM**  
**PD-FLSRM-03B**  
**SEPTEMBER 2003**

# **FILTER-LINE™**

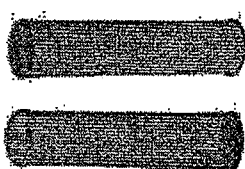
## **SERIES SRM**

### **1/2" POLYESTER -- SYNTHETIC**

### **SCRIM BACKED ROLL MEDIA**

Air Filters  
**MERV 4**  
 Minimum Efficiency  
 Reporting Value

#### **Description**



The FILTER-LINE™ Series SRM — 1/2" Synthetic Roll Media is produced from virgin polyester fibers. The media is a graded density blanket and all polyester fibers are bonded by a thermo setting bonding agent. Media will yield a minimum thickness of 1/2" when unrolled in the air stream. The media is charged with a gel-type adhesive to effectively trap and hold dirt particles. The entire media blanket is reinforced by a fabric scrim netting, which maintains media configuration. The 65 feet long roll is provided with trailers and leaders for ease of installation. SRM Roll Media is available for all types of Roll Filter machines.

#### **Construction**

##### **VIRGIN POLYESTER FIBERS**

Series SRM Media is produced from virgin polyester fibers which are bonded by a thermo setting bonding agent to form media. Media has a dry weight of @ 5.5 ounces per square yard.

##### **GRADED DENSITY MEDIA**

Series SRM Media is progressively denser from the air-entering to the air-leaving side. Fiber diameters begin at 40 denier on the clean side and reduce to 25 denier on the air-leaving side.

##### **GEL-TYPE ADHESIVE**

Series SRM Media is charged with an odorless, non-toxic gel adhesive to trap and hold dirt particles. The gel adhesive is a high viscosity product. It will not blow off the media into the air stream.

##### **FABRIC SCRIM NETTING**

Series SRM Media is fully supported on the downstream side of the media with a fabric scrim netting. This reinforcing backing is totally secured to the media and maintains media configuration.

##### **MEDIA TRAILERS AND LEADERS**

Series SRM Media is supplied with a heavy duty trailer and leader to assist in the installation of the Roll Media. Trailers and leaders are securely sewn to the SRM Media blanket.

##### **ASHRAE TESTED MEDIA**

Series SRM Media has been thoroughly tested by independent testing laboratories in strict accordance with current ASHRAE Standards for air filters. Test reports are available upon request.

#### **Dimensional Data**

AIRMAZE-TYPE	
MODEL NO.	SIZE
AIR20	20 1/2"
AIR32	32 1/2"
AIR44	44 1/2"
AIR56	56 1/2"
AIR68	68 1/2"

CAMBRIDGE-TYPE	
MODEL NO.	SIZE
CAM24	23 3/4"
CAM33	32 3/4"
CAM45	44 3/4"
CAM57	56 3/4"
CAM66	65 3/4"
CAM69	68 3/4"

FARR-TYPE	
MODEL NO.	SIZE
FAR09	8 3/4"
FAR15	14 3/4"
FAR21	20 3/4"
FAR27	26 3/4"
FAR33	32 3/4"
FAR39	38 3/4"
FAR45	44 3/4"
FAR51	50 3/4"
FAR57	56 3/4"
FAR69	68 3/4"

AMERICAN-TYPE	
MODEL NO.	SIZE
AME20	20 1/2"
AME22	22 1/4"
AME25	24 7/8"
AME32	31 7/8"
AME33	32 3/4"
AME38	38 1/2"
AME40	39 7/8"
AME45	44 3/4"
AME57	56 3/4"
AME69	68 3/4"

TRANE-TYPE	
MODEL NO.	SIZE
TRA19	19 1/2"
TRA21	21 1/8"
TRA25	25 1/2"
TRA31	31"
TRA35	35"
TRA38	38 3/8"
TRA46	44 7/8"
TRA50	49 3/4"
TRA54	53 7/8"
TRA59	58 3/4"
TRA61	61 1/8"
TRA63	62 3/4"

Trade names shown are used for reference purposes only.

BLC-TYPE	
MODEL NO.	SIZE
BLC25	24 5/8"
BLC35	34 5/8"
BLC39	38 5/8"
BLC47	48 5/8"
BLC59	58 5/8"
BLC71	70 5/8"

CONTINENTAL-TYPE	
MODEL NO.	SIZE
CON22	21 7/8"
CON32	31 7/8"
CON36	35 7/8"
CON44	43 7/8"
CON56	55 7/8"
CON68	67 7/8"

CARRIER-TYPE	
MODEL NO.	SIZE
CAR23	23 3/8"
CAR26	26 1/4"
CAR34	34 3/8"
CAR37	37 1/4"
CAR44	43 7/8"
CAR47	47 1/4"
CAR58	57 7/8"
CAR61	61 1/4"
CAR68	67 7/8"

MINE SAFETY-TYPE	
MODEL NO.	SIZE
MIN21	21"
MIN27	27"
MIN33	33"
MIN39	39"
MIN45	45"
MIN51	51"
MIN57	57"
MIN63	63"
MIN69	69"

#### **MODEL NUMBER KEY**

FLSRMBLC47

Insert model number prefix to complete model number

FL- FILTER-LINE™  
 SRM- Synthetic, Scrim Backed 1/2" Media  
 BLC- BLC Industries, Inc. Type Core  
 47- Core Width

#### **Performance Data**

SERIES	INITIAL RESISTANCE		RFR RECOMMENDED FINAL RESISTANCE	EFFICIENCY & ARRESTANCE VALUES	MERV VALUE
	@ 300 FPM	@ 500 FPM			
SRM	10	18	50	<20% EFF. 75% ARR.	MERV 4

BLC Industries, Inc.  
 P.O. Box 14187  
 Louisville, Kentucky 40214  
 Phone: (502) 366-6002  
 Fax: (502) 366-6255

E-Mail: [askus@blcind.com](mailto:askus@blcind.com)

[www.blcind.com](http://www.blcind.com)

BLC West  
 Phone: (480) 839-5333  
 Fax: (480) 839-1584

We reserve the right to make changes in product design and product specifications without prior notice or obligation.

**BLC INDUSTRIES INC.**  
 Breathe Easy, We Have The Line On Air Filtration.

**Lange, Alan**

**From:** Ed Case [edcase@blcind.com]  
**Sent:** Wednesday, May 24, 2006 9:17 AM  
**To:** Lange, Alan  
**Subject:** AUTO-LINE Vertical Autoroll

Allen – here is pricing as requested I have also provided a cost add for factory installation in a BLC manufactured plenum with a secondary filtration stage  
Call or respond THANKS!

(8) AUTO-LINE Vertical AutoRoll 14ARV160 (76,565 CFM @ 500 FPM) \$6250 00 EACH Attachment  
Dimensions: 156" Width x 160" Height x 24 1/4" Depth

- Standard Air Flow
- Inside Drive -- 1/9HP Motor
- 120Volt -- 60 Hertz -- 1 Phase
- NEMA 1 Controls
- Factory Assembled and Wired
- Timer with Pressure Media Advance Override
- Manual advance push button
- Media Run-out Switch
- Media Run-out Signal light
- Integral Grid for Media Integrity
- Standard Fasteners & Hardware
- Initial Media Roll

Add - Factory Manufactured Plenum w/Mounted ARV & Safety Lights \$8695 00 EACH Photo Attachment  
Plenum provides 2<sup>nd</sup> & 3<sup>rd</sup> Stages for ASHRAE 30% to 95% Filtration

Add for Roll Covers - 8% to AutoRoll Unit Price

Delivery: 8-9 Weeks ARS  
FOB: Louisville, KY 40214  
Prepaid & Add Freight - Direct LTL Point - Ft Lauderdale, FL -- \$2890 00

Ed Case  
Phone: 502-366-6002  
Fax: 502-366-6255  
E-mail: edcase@blcind.com  
[www.blcind.com](http://www.blcind.com)

--  
No virus found in this outgoing message  
Checked by AVG Free Edition  
Version: 7.1.385 / Virus Database: 268.5.1/326 - Release Date: 4/27/2006

--  
No virus found in this outgoing message  
Checked by AVG Free Edition  
Version: 7.1.392 / Virus Database: 268.5.3/331 - Release Date: 5/3/2006

--  
No virus found in this outgoing message  
Checked by AVG Free Edition

5/24/2006

Hurricane Louver

64-48"x90" (1)

**RUSKIN®**

Greaves Rd

Kansas City, MO 64030

(816) 761-7476

FAX (816) 765-8955

**EME6625D WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER****MIAMI-DADE APPROVED****MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER: 01-0912.02 (EXPIRES 1/28/07)****STANDARD CONSTRUCTION****LOUVER FRAME**

6" (152) deep, 6063T5 extruded aluminum with 125" (3.2) nominal wall thickness

**LOUVER BLADES**

6063T5 extruded aluminum .081" (2.1) nominal wall thickness. Blades are mounted vertically

**BIRD SCREEN**

1/2" x .063" (13 x 1.6) square mesh aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth

**INSTALLATION CHANNELS**

1/8" (3) thick formed aluminum Universal Installation Channels are provided enabling the EME6625D Louver and EME6625D/CD50 Louver/Damper Combination unit to be installed in most wall systems. Standard channel depth is 8 1/4" (209) for CMU block wall system. However, the channels may be ordered in various depths to accommodate other wall systems

**FINISH**

Mill

**MINIMUM SIZE**

12" w x 12" h (305 x 305)

**APPROXIMATE SHIPPING WEIGHT**

12 lbs per sq ft (58.6 kg/m²)

**MAXIMUM SHIPPING SECTION SIZE**

48" w x 96" h (1219 x 2438)

**MAXIMUM OVERALL ASSEMBLY SIZE**

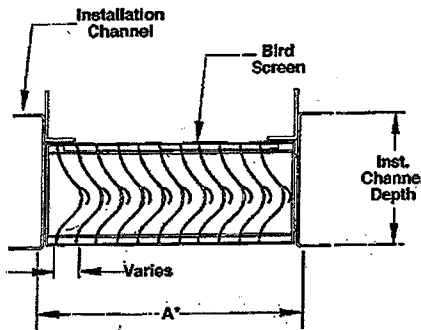
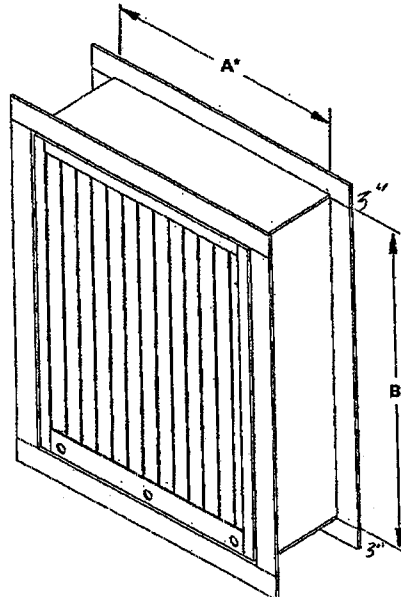
Unlimited width x 96" h (2438) with or without damper. Overall assembly consists of individual sections combined in the field (combination of sections in the field not by Ruskin)

**INSTALLATION**

The EME6625D must be installed per the appropriate Installation Detail. Reference the appropriate separate Installation Instruction Sheets

Consult Ruskin for additional information

Dimensions in inches, parenthesis ( ) indicate millimeters

**Front  
(Plan View)****FEATURES**

- Approved for use in open structures without provisions to manage weather infiltration (dry rooms) up to 33' (10.06m) above ground level.
- Approved for use in open structures with provisions to manage weather infiltration (wet rooms) over 33' (10.06m) above ground level when combined with optional CD50 control damper.
- Approved for use in closed structures without provisions to manage weather infiltration (dry rooms) over 33' (10.06m) above ground level when combined with optional CD50 control damper.
- Approved for use in closed structures with provisions to manage weather infiltration (wet rooms) over 33' (10.06m) above ground level when combined with optional CD50 control damper.
- Maximum windload with and without damper +160 PSF (7.66 KPa), -140 PSF (-6.70 KPa)
- 42% Free Area
- Published free area and pressure drop performance ratings based on testing in accordance with AMCA Publication 500-D
- Optional finishes available at additional cost: prime coat, baked enamel (modified fluoropolymer), epoxy, Pearledize, Kynar, clear and color anodize. (Some variations in anodize color consistency is possible)
- On EME6625D/CD50 Combination Units, the CD50 Damper and sleeve are shipped separately and must be combined with the EME6625D in the field (combination of louver/damper not by Ruskin)

\*Please provide Rough Opening Dimensions for "A" and "B" dimensions. Unless ordered as actual size, the installation channels will be provided 1/4" (6) smaller than the "A" and "B" dimensions provided. To allow clearance for the installation channels, louver width and height will be 3/4" (19) less than the rough opening dimensions

Installation Channels for louvers ordered as Actual Size will not be undersized. Order acknowledgements for actual size orders or orders with engineering drawings may show actual louver frame dimensions less installation channel thickness

CALL ASK ABOUT

PRESSURE DROP THRU  
VARIATIONS BIRD SCREEN

TAG	QTY.	SIZE		INST. CHANNEL DEPTH	
		A*-WIDE	B*-HIGH		
PROJECT ARCH./ENGR. REPRESENTATIVE			LOCATION CONTRACTOR DATE		



# RUSKIN®

3900 Dr Greaves Rd

Kansas City, MO 64030

(816) 761-7476

FAX (816) 765-8955

## ELF6350DMP DRAINABLE STATIONARY LOUVER

EXTRUDED ALUMINUM

### STANDARD CONSTRUCTION

#### FRAME

6" (152) deep, 6063T5 extruded aluminum with .125" (3.2) nominal wall thickness. Downspouts and caulking surfaces provided.

#### BLADES

6063T5 extruded aluminum with .081" (2.1) nominal wall thickness. Drainable blades are positioned at 35° angle and spaced approximately 4" (102) center to center.

#### SCREEN

3/4" x .051" (19 x 1.3) expanded flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.

#### FINISH

Mill

#### MINIMUM SIZE

12" w x 12" h (305 x 305)

#### APPROXIMATE SHIPPING WEIGHT

6 lbs. per sq ft (29.3 kg per m²)

#### MAXIMUM FACTORY ASSEMBLY SIZE

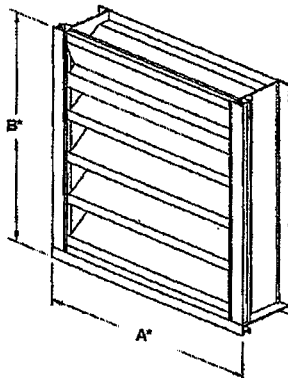
Shall be 75 sq ft (7m²) per section not to exceed 120" w x 90" h (3048 x 2286) or 90" w x 120" h (2286 x 3048).

Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.

#### SUPPORTS

Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

Consult Ruskin for additional information.



### FEATURES

The ELF6350DMP offers:

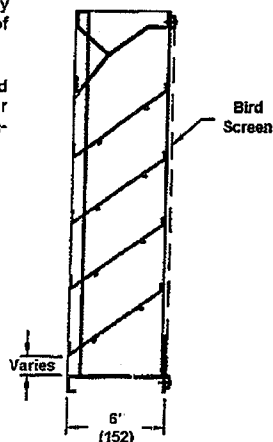
- 58% Free Area
- Beginning point of water penetration above 1250 fpm free area velocity
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- High performance frame system with drainable head collects and removes water to provide excellent water penetration performance
- Drain gutter in each blade minimizes water cascade between blades
- Continuous blades up to 120' (3048)
- All aluminum construction for low maintenance and high resistance to corrosion

### VARIATIONS

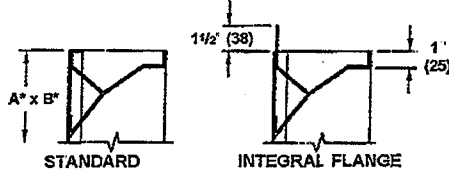
Variations to the basic design of this louver are available at additional cost. They include:

- Extended sill
- Hinged frame
- Front or rear security bars
- Filter racks
- A variety of bird and insect screens
- Selection of finishes: prime coat baked enamel (modified fluoropolymer) epoxy, Pearledize 50 & 70, Kynar, clear and color anodize. (Some variation in anodize color consistency is possible)

Consult Ruskin for other special requirements.



### FRAME CONSTRUCTION



Dimensions in parenthesis ( ) indicate millimeters

\*Units furnished 1/4" (6) smaller than given opening dimensions

TAG	QTY.	SIZE		FRAME	VARIATIONS
		A*-WIDE	B*-HIGH		
PROJECT			LOCATION		
ARCH /ENGR.			CONTRACTOR		
REPRESENTATIVE			DATE		

QUOTATION  
**BOWMAN AND ASSOCIATES**

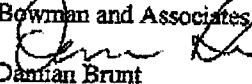
Date: 5/24/06

3802 34th St.  
Moline, IL 61265  
Ph: 1-309-762-1537  
Fax: 1-309-797-4900  
Project: Budget Pricing

To: Stanley Consultants  
Alan Lange

Ruskin louvers, box frame, bird screen, sill extensions, kynar 500 finish

EME6625 90"x48"	\$2,950.00	
EME745 78"x78"	\$2,500.00	
EME745 60"x60"	\$1,550.00	} NOT USED
EME745 54"x54"	\$1,350.00	
ELF6350DMP 78"x78"	\$1,400.00	
ELF6350DMP 60"x60"	\$900.00	
ELF6350DMP 54"x54"	\$800.00	

Thank you,  
Bowman and Associates  
  
Damian Brunt

Terms: Net 30, 1.5% added per month after 30 days  
FOB: Factory, freight allowed, not unloaded  
Delivery: 7-8 weeks.

**WARRANTY IS 1 YEAR PARTS ONLY, NO LABOR.**

All proposals are contingent upon strikes, accidents, clerical errors and delays beyond our control. All prices subject to approval of the home office. All prices do not provide for any taxes. Any taxes that may be applied shall be born by the purchaser. All proposals void after 30 days.

**Lange, Alan**

---

**From:** Swanson, Noah K [nkswanson@trane.com]  
**Sent:** Wednesday, May 24, 2006 8:23 AM  
**To:** Lange, Alan  
**Subject:** RE: Cost estimate

Hello,

Budget price \$4000 total for all 3 units

Thanks,

noah

Noah Swanson  
Trane Company  
Davenport Commercial Sales Office  
**internet:** nkswanson@trane.com  
**voice:** 563 468 4900  
**fax:** 563 391 0277

7

-----Original Message-----

**From:** Lange, Alan [mailto:LangeAlan@stanleygroup.com]  
**Sent:** Tuesday, May 23, 2006 5:09 PM  
**To:** Swanson, Noah K.  
**Subject:** Cost estimate

Noah,

Can you give me a cost for:

Air handling unit: TWE031E130A  
Air cooled condensensing unit: TTP018C100A  
Air cooled condensensing unit: TTP024C100A  
Delivery cost to Ft. Lauderdale, FL  
Delivery time to Ft. Lauderdale, FL

Alan

Senior Designer  
563-264-6443  
LangeAlan@stanleygroup.com

Stanley Bldg  
225 Iowa Ave  
Muscatine, IA 52761

5/24/2006



16.50/50 FT  
2' 4"

United McGill® products



A McGill AirSilence™ product

# UNI-HOUSING™ PRESSURIZED ENCLOSURES

FOR HEATING, VENTILATING, AND  
AIR CONDITIONING EQUIPMENT

**McGill AirSilence LLC**

An enterprise of United McGill Corporation —  
Founded in 1951

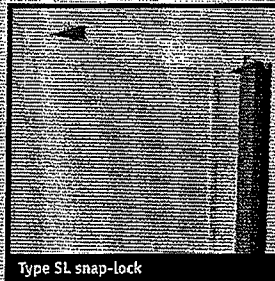
## Panel Systems

### Type SL— Snap-Lock

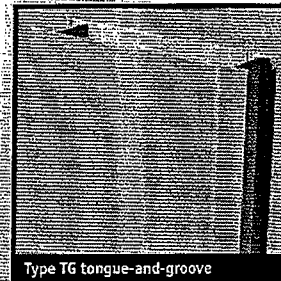
A special built-in connection system allows the Type SL panels to snap lock together, forming a low-leakage, structurally sound, full-length joint. This mechanical interlocking joint requires no sheet metal screws. The three-step panel locking sequence shown (top right) illustrates the snap-lock action of the connection. First, one panel is started into the structural channel of the next panel. As the panels are pushed together, the locking lugs spring out and then snap back into position as the connection process is completed. Sealer, which is placed in the outside self-locking recess prior to connection, is hydraulically extruded in place as the panels are snap locked together.

### Type TG— Tongue-and-Groove

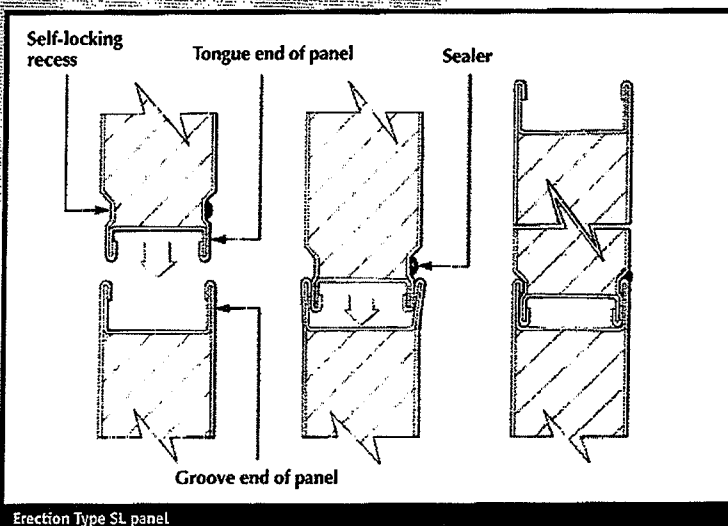
The Type TG panels utilize a tongue-and-groove joint design where the tongue end of one panel slips into the groove end of the adjoining panel (lower right). Fasteners (screws) are required for securing the panel joint. For installations where disassembly and re-erection may be required, it is recommended that a removable joint sealer be used instead of the standard McGill Air Seal United Duct Sealer™ sealant.



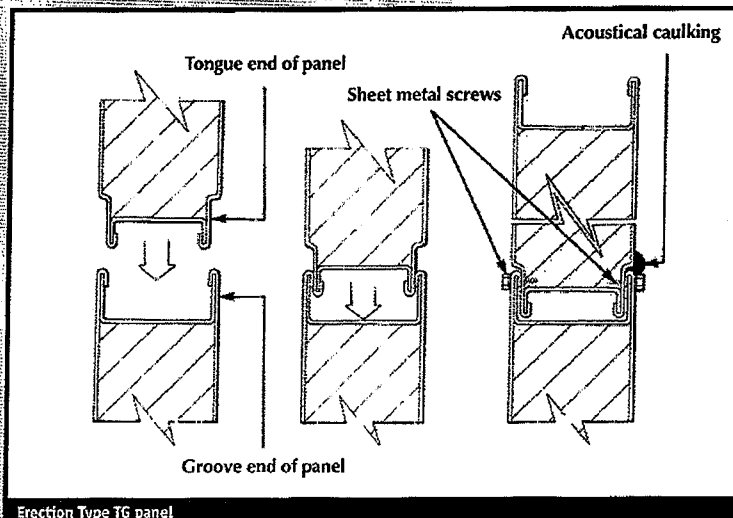
Type SL snap-lock



Type TG tongue-and-groove



Erection Type SL panel



Erection Type TG panel



## Standard Panel Construction

UNI-HOUSINGS can be constructed from McGill AirSilence's Type SL or Type TG panel systems. The Type SL and Type TG panels are identical except for their panel joint designs. The Type SL panel has a self-locking (snap-lock) design that offers quick assembly and is used in applications where disassembly is not a primary concern. The Type TG panel has a simple tongue-and-groove design that is recommended when future disassembly and re-erection of the enclosure may be required. Both panels have a sandwich-type construction consisting of a solid galvanized steel outer shell, acoustical/thermal insulating fill, and a perforated inner liner of galvanized steel. All of the standard wall, door, roof, and floor panels are available with either the snap-lock joint design or tongue-and-groove joint design.

### Material Types and Thicknesses

The standard material for both the outer shell and inner liner is galvanized steel. It can be specified as either solid or perforated and has a minimum G-60 zinc coating. The perforated steel has a 23-percent open area. Many different material and gauge combinations of outer shell and inner liner can be selected, with the inner liner being either solid or perforated.

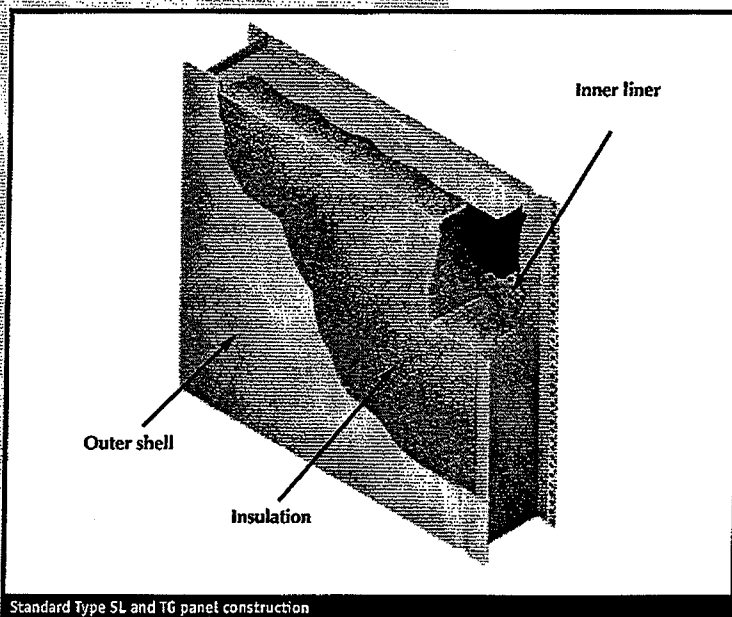
#### Solid Outer Skin

- 20-gauge
- 18-gauge (standard)
- 16-gauge

#### Solid or Perforated Inner Skin

- 22-gauge (standard)
- 20-gauge
- 18-gauge

Both SL and TG panels are available in a standard 4-inch thickness. A 2-inch thickness is optional, with other thicknesses available by special order. Standard panel widths are 24 inches and 36 inches, with standard lengths up to 12 feet. Other widths and longer lengths are also available through special order. For most enclosures, at least one special-width panel will be required as a fill-in panel to match the specified dimensions of each wall, floor, or roof assembly. Also, in most cases, maximum panel lengths will be determined by the working design pressures.



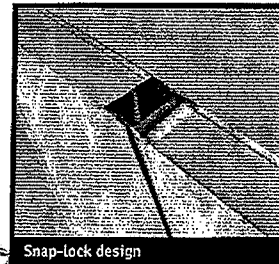
Standard Type SL and TG panel construction

### Insulation

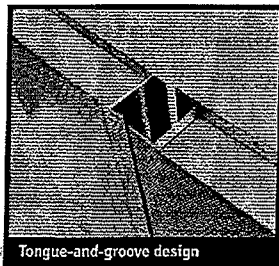
The standard acoustical/thermal fill material used in Type SL and type TG panels is 1.55 pcf fiberglass, giving the standard 4-inch-thick panel a value of R17. Optional joint insulation may be specified when insulation between panel joints is required. However, since independent testing has shown the thermal effect of insulation in the joint to be negligible, insulation is not considered necessary for thermal control in most applications. The fill will not settle or promote the growth of bacteria, mold, vermin, or insects. A moisture barrier can also be specified that consists of one layer of polyethylene plastic separating the insulation from the inner perforated metal liner.

### Surface Burning Characteristics

The Type SL and type TG panels meet or exceed stringent fire safety requirements. ANSI/NEPA 90A Installation of Air Conditioning and Ventilating Systems specifies "...a flame spread rating not over 25 without evidence of continued progressive combustion and a smoke developed rating no higher than 50..." for all duct coverings, duct linings, tapes, dry adhesives, and panel core materials used in air handling units and in duct systems. The standard for developing these ratings is UL-723 Tests for Surface Burning Characteristics of Building Materials (ASTM E-84, NFPA 255). All insulating materials, inner and outer surfaces, and sealants used in UNI-HOUSING enclosures meet the requirements of ANSI/NEPA 90A.



Snap-lock design



Tongue-and-groove design

# Titus Budget Pricing

AIR DEVICE SCHEDULE									
MARK	DESIGN BASIS		TYPE	CFM RANGE	FACE SIZE	NECK SIZE	MATERIAL	FINISH	REMARKS
	MAKE	MODEL							
S-1	TITUS	TMS-AA	SUPPLY	125-225	24X24	8"	ALUMINUM	OFF-WHITE	B. \$51.00
S-2	TITUS	TMS-AA	SUPPLY	0-125	12X12	6"	ALUMINUM	OFF-WHITE	B. *
S-3	TITUS	JFA-S	SUPPLY	1000 - 10,000	32X32	30X30	STEEL	OFF-WHITE	C. \$259.00
R-1	TITUS	350FL	RETURN	0-550	24X12	22X10	ALUMINUM	OFF-WHITE	A. B. \$31.00
R-2	TITUS	350FL	RETURN	550-950	24X24	22X22	ALUMINUM	OFF-WHITE	A. B. \$54.00
E-1	TITUS	350FL	EXHAUST	0-200	12X12	10X10	ALUMINUM	OFF-WHITE	B. \$21.00
NOTES: A. PROVIDE ROUND TO SQUARE TRANSITION AS REQUIRED TO CONNECT TO BRANCH DUCT. (by contractor) B. PROVIDE OPPOSED BLADE DAMPER AT DEVICE NECK WHERE CEILING CAVITY IS NOT ACCESSIBLE. C. PROVIDE OPPOSED BLADE DAMPER OPERABLE FROM FACE OF REGISTER. ALSO PROVIDE POLE OPERATOR HANDLE FOR REAR BLADE ADJUSTMENT.									

357  
140  
162  
72

\* 12x12 face not available in aluminum.  
TMS Steel 12x12 face is \$25.00

Dampers are included.

**Jensen, Glenn**

---

Chad updated the clearing & grubbing number      use 10,362 acres

**C-43 WEST STORAGE RESERVOIR PROJECT  
WO NO. C-C10401P-WO NO. 09**

**QUANTITY ESTIMATES  
C43-S1 – MAIN OUTLET**

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No. C-C10401P-WO No 09  
 C43-S1 Main Outlet  
 Quantity Estimate

Project No. 17300.09.00  
 5/17/2006

CONDUITS - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Typical Conduit Sheets 85, 86	Base (SOG - Finished Top Surface)	156	25.5	22	7293.0	1	270.1	3120	665	
	Center Haunch (SOG)	156	5	6	390.0	1	14.4	0	156	
	Top Slab (Elevated Slab - Finished Bottom Surface)	156	24.5	24	7644.0	1	283.1	3120	722	3120
	Walls (Walls - Finished inside surfaces)	156	6	18	1404.0	3	156.0	3744	5670	
Conduit at Gatewell Sheets 85, 86	Base (SOG - Finished Top Surface)	40	26	31*	2710.5	1	100.4	562	209	
	Top Slab (Elevated Slab - Finished Bottom Surface)	32	24.5	30*	2232.8	1	82.7	809	398	540
	Walls (Walls - Finished inside surfaces)	40	6	134*	2670.0	1	98.9	960	1440	
Totals							1005.6	12315	9260	3660
* Represents the average measurement over the particular section Actual measurement varies linearly										
Reinforcement Quantities		Length (ft)	Density (lbs/ft)	Weight (Tons)						
Typical Conduit		156	500	39.00						
Conduit at Gatewell		40	500	10.00						
Total Reinforcement:				49.00						
*Reinforcement density per computations										

13.16  
 70  
 13.79  
 7.6  
 4.89  
 4.03  
 4.82

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S1 Main Outlet  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

STILLING BASIN - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Stilling Basin Parabolic Transition Sheet 88	Walls (Walls - Finished Inside Surfaces)	35	13.5*	18	708.8	3	78.8	1890	2835	
	Base (SOG - Finished Top Surface)	35	24.5	18	1288.3	1	47.6	858	179	
	Shear Key	24.5	2	24*	98.0	1	3.6		98	
	Top Slab (Elevated Slab - Finished Bottom Surface)	24.5	35	15	1071.9	1	39.7	858	37	858
Stilling Hydraulic Jump Basin Sheet 88	Walls (Walls - Finished Inside Surface)	32.25	19	18	919.1	3	102.1	2451	3782	
	Base (SOG - Finished Top Surface)	32.25	24.5	36	2370.4	1	87.8	790	341	
	Toe Support	24.5	2	24*	98.0	1	3.6		98	
	Chute Blocks (4 Finished Surfaces)	1	1	12	1.0	10	0.4	30	30	
	Baffle Blocks (5 Finished Surfaces)	2.5	1.25	14*	3.6	8	1.1	96	96	
	End Sill (3 Finished Surfaces)	24.5	3.5	10*	73.5	1	2.7	131	131	
	Bridge Slab (Elevated Slab - Finished Top & Edge Surfaces)	24.5	24	15	735.0	1	27.2	649	31	588
	Bridge Slab Sills (Finished Top & Side Surfaces)	24.5	1.75	6*	21.4	2	1.6	25	49	
Totals							396.2	7777	7685	1446

\* Represents the average measurement over the particular section.  
Actual measurement varies linearly.

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Parabolic Transition Base	858	10.43	4.47
Parabolic Transition Walls	1418	8.09	5.73
Parabolic Transition Top Slab	858	10.43	4.47
Hydraulic Jump Basin Base	790	10.43	4.12
Hydraulic Jump Basin Walls	1838	8.93	8.21
Bridge Slab	588	10.43	3.07
Total Reinforcement			30.07

\*Reinforcement density per computations

5.98  
3.61  
0.27  
3.01  
7.75  
6.66  
0.27  
3  
0.08  
0.20  
2.06  
0.12

0.075896 R44  
C4



Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No 09  
 C43-S1 Main Outlet  
 Quantity Estimate

Project No 17300 09.00  
 5/17/2006

GATEWELL - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Gateway Sheet 86	Walls (L to flow) (Walls - Finished Inside Surfaces)	28	24.5	18	1029.0	2	76.2	1372	2912	
	Walls (R to flow) (Walls - Finished Inside Surfaces)	28	10	18	420.0	3	46.7	1120	1680	
	Air Vent Casings	27	1.5	15*	51.3	2	3.8	122	122	
Totals							126.7	2614	4714	0
* Represents the average measurement over the particular section. Actual measurement varies linearly.										

Reinforcement Quantities	Length (ft)	Density (lbs/ft)	Weight (Tons)
Gateway	28	510	7.14
Total Reinforcement			7.14

005675

\*Reinforcement density per computations

4.29  
 2.63  
 0.31

0.5625

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No.09  
C43-S1 Main Outlet  
Quantity Estimate

Project No 17300 09 00  
5/17/2006

INTAKE - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft <sup>3</sup> )	Quan.	Concrete (CY)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Intake Sheet 87	Base Slab (SOG - Finished Top Surface)	43.75	51	36	6693.8	1	247.9	1541	569	
	Top Girders (Elevated - Finished Top, Bottom, and Side Surfaces)	45	1	21	78.8	3	8.8	743	608	
	Top Beams (Elevated Beams - Finished Top, Bottom, and Side Surfaces)	10	0.667	12	6.7	18	4.4	600	480	
	Headwall (Wall - Finished Inside, Outside, & Top Surfaces with formed Gate Openings)	49 (32)	26 (6)	24 (24)	2164.0	1	80.1	2262	2736	
	Backside Intake Double Wall (Walls - Finished Inside, Outside, & Top Surfaces)	49	20	42	3920.0	1	145.2	2058	2040	
	Transition to Conduit Side Curved Sections (Walls - Finished Inside Surface)	21*	6	37*	392.6	2	29.1	252	450	
	Transition to Conduit Side Center Section (Walls - Finished Inside & Outside Surfaces)	12.5	6	33*	34.8	1	13	150	150	
	Walls (fl to flow) (Walls - Finished Inside, Outside, and Top Surfaces with formed Gate Openings)	35 (24)	26 (6)	24 (24)	1532.0	2	113.5	3201	3976	
	Divider Wall (fl to flow) (Walls - Finished Inside, Outside, and Top Surfaces)	34.25	12	18	616.5	1	22.8	873	822	
Center Columns		12.25	1.5	12	18.4	2	1.4	662	662	
Totals							654.5	12342	12492	0

\* Represents the average measurement over the particular section  
Actual measurement varies linearly

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Intake Base	2231	10.43	11.64
Intake Walls	4485	8.93	20.03
Total Reinforcement			31.66

\*Reinforcement density per computations

11.99

4.3

2.1

3.87

7.02

1.41

.06

5.49

1.10

.07

0.04837

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S1 Main Outlet  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

C43-S1 CONCRETE QUANTITY SUMMARY					Elevated Slab
Main Outlet Section	Concrete (CY)	Reinforcement (Tons)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Conduit	1005.6	49.00	12315	9260	3660
Gatewell	126.7	7.14	2614	4714	0
Intake	654.5	31.66	12342	12492	0
Stilling Basin	396.2	30.07	7777	7685	1446
Totals	2183.0	117.87	35047	34150	5106

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S1 Main Outlet  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

GATES AND MISCELLANEOUS				
Main Outlet Section	Item Description	Quantity	Units	Notes
Conduit Sheets 85, 86	Expansion Joint Waterstop Material	480	LF	8*(23*2+7*2)
	5'x6' Cast Iron Sluice Gates	4	EA	
Gateway Sheet 86	Type-F Wall Thimble	4	EA	
	Gate Stem	140	LF	4*35
	Motor Actuators	4	EA	
	Heavy Duty Steel Grating	200	SF	2*(10*10)
	W8x31 I-Beam	40	LF	2*2*10
	Maintenance Ladder (Rungs)	74	EA	2*37
	Maintenance Ladder (Retractable Posts)	4	EA	
	Maintenance Ladder Safety Cage	56	LF	2*(37-9)
	2 1/2" Diam. Steel Railing (42" Height)	40	LF	
	8" PVC Pipe (Air Vent)	62	LF	2*31
Intake Sheet 87	6'x8' Stainless Steel Slide Gates	10	EA	
	6'x8' Cast Iron Sluice Gates	2	EA	
	Gate Stem	200	LF	2*(10+10+16+24+16+24)
	Watertight Motor Actuators	12	EA	
	Trash Strut Steel (3" x 1/4" Bars)	2042	LB	10*490*.4167
	Heavy Duty Steel Grating	1551	SF	44*35.25
	Maintenance Ladder (Rungs)	78	EA	3*26
	Maintenance Ladder (Retractable Posts)	6	EA	
	Maintenance Ladder Safety Cage	34	LF	2*(26-9)
	10' Dewatering Needle Beam	2	EA	
Stilling Basin Sheet 88	Needle Beam Bulkhead	2	EA	
	2 1/2" Diam. Steel Railing (42" Height)	72.5	LF	35+35+24.5
	2 1/2" Diam. Steel Bridge Railing (42" Height)	49	LF	2*24.5
	Steel Sheet Pile Cutoff	367.5	SF	15*24.5

Note: Riprap quantities included in civil discipline estimates

$$1551 + 200 = 1751$$

$$78 + 74 = 152$$

$$6 + 4 = 10$$

$$34 + 56 = 90$$

$$73 + 40 = 113 + 9 = 162$$

**C-43 WEST STORAGE RESERVOIR PROJECT  
WO NO. C-C10401P-WO NO. 09**

**QUANTITY ESTIMATES  
C43-S8 – MAIN OUTLET**

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No. C-C10401P-WO No.09  
 C43-S8 Main Outlet  
 Quantity Estimate

Project No. 17300.09.00  
 5/17/2006

CONDUITS - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Typical Conduit Sheets 85, 86	Base (SOG - Finished Top Surface)	156	25.5	22	7293.0	1	270.1	3120	665	
	Center Haunch (SOG)	156	5	6	390.0	1	14.4	0	156	
	Top Slab (Elevated Slab - Finished Bottom Surface)	156	24.5	24	7644.0	1	283.1	3120	722	3120
	Walls (Walls - Finished inside surfaces)	156	6	18	1404.0	3	156.0	3744	5670	
Conduit at Gateway Sheets 85, 86	Base (SOG - Finished Top Surface)	40	26	31*	2710.5	1	100.4	562	209	
	Top Slab (Elevated Slab - Finished Bottom Surface)	32	24.5	30*	2232.8	1	82.7	609	398	540
	Walls (Walls - Finished inside surfaces)	40	6	134*	2670.0	1	98.9	960	1440	
Totals							1005.6	12315	9260	3660
* Represents the average measurement over the particular section. Actual measurement varies linearly.										
Reinforcement Quantities		Length (ft)	Density (lbs/ft)	Weight (Tons)						
Typical Conduit		156	500	39.00						
Gateway Conduit		40	500	10.00						
Total Reinforcement				49.00						
-048727										
*Reinforcement density per computations										

13.16  
 70  
 13.79  
 7.6  
 4.89  
 41.03  
 41.82

-048727

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No.09  
 C43-S8 Main Outlet  
 Quantity Estimate

Project No. 17300.09 00  
 5/17/2006

GATEWELL - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Gateway Sheet 86	Walls (I to flow) (Walls - Finished Inside Surfaces)	24	24.5	18	882.0	2	65.3	1176	2496	
	Walls (II to flow) (Walls - Finished Inside Surfaces)	24	10	18	360.0	3	40.0	960	1440	
	Air Vent Casings	23	1.5	15*	43.7	2	3.2	104	104	
Totals							108.6	2240	4040	0
* Represents the average measurement over the particular section. Actual measurement varies linearly.										

Reinforcement Quantities	Length (ft)	Density (lbs/ft)	Weight (Tons)
Gateway	24	510	6.12
Total Reinforcement			6.12

0.05635

\*Reinforcement density per computations

3.60  
 2.25  
 1.18

0.5635

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S8 Main Outlet  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

# INTAKE - CONCRETE

Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Elevated Slab Formwork (ft²)
Intake Sheet 87	Base Slab (SOG - Finished Top Surface)	43.75	51	36	6693.8	1	247.9	1541	569	12.89
	Top Girders (Elevated - Finished Top, Bottom, and Side Surfaces)	45	1	21	78.8	3	8.8	743	608	0.46
	Top Beams (Elevated Beams - Finished Top, Bottom, and Side Surfaces)	10	0.667	12	6.7	18	4.4	600	480	0.23
	Headwall (Wall - Finished Inside, Outside, & Top Surfaces with formed Gate Openings)	49 (32)	23 (6)	24 (24)	1870.0	1	69.3	1968	2430	3.60
	Backside Intake Double Wall (Walls - Finished Inside, Outside, & Top Surfaces)	49	17	42	3405.5	1	126.1	1764	1734	6.56
	Transition to Conduit Side Curved Sections (Walls - Finished Inside Surface)	21*	6	37*	392.6	2	29.1	252	450	1.51
	Transition to Conduit Side Center Section (Walls - Finished Inside & Outside Surfaces)	12.5	6	33*	34.8	1	1.3	150	150	0.07
	Walls (fl to flow) (Walls - Finished Inside, Outside, and Top Surfaces with formed Gate Openings)	35 (24)	23 (6)	24 (24)	1322.0	2	97.9	2781	3556	5.09
	Divider Wall (fl to flow) (Walls - Finished Inside, Outside, and Top Surfaces)	34.25	12	18	616.5	1	22.8	873	822	1.19
Center Columns		12.25	1.5	12	18.4	2	1.4	662	662	
Totals							609.0	11334	11460	0

\* Represents the average measurement over the particular section  
Actual measurement varies linearly

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Intake Base	2231	10.43	11.64
Intake Walls	4485	8.93	20.03
Total Reinforcement			31.68

\*Reinforcement density per computations

05128296



Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No 09  
C43-S8 Main Outlet  
Quantity Estimate

Project No 17300.09 00  
5/17/2006

STILLING BASIN - CONCRETE										Elevated Slab
Main Outlet Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Stilling Basin Parabolic Transition Sheet 88	Walls (Walls - Finished Inside Surfaces)	35	13*	18	682.5	3	75.8	1820	2730	
	Base (SOG - Finished Top Surface)	35	24.5	18	1286.3	1	47.6	858	179	
	Shear Key	24.5	2	24*	98.0	1	3.6		98	
	Top Slab (Elevated Slab - Finished Bottom Surface)	24.5	35	15	1071.9	1	39.7	858	37	858
Stilling Hydraulic Jump Basin Sheet 88	Walls (Walls - Finished Inside Surface)	32.25	18	18	870.8	3	96.8	2322	3564	
	Base (SOG - Finished Top Surface)	32.25	24.5	36	2370.4	1	87.8	790	341	
	Shear Key	24.5	2	24*	98.0	1	3.6		98	
	Chute Blocks (4 Finished Surfaces)	1	1	12	1.0	10	0.4	30	30	
	Baffle Blocks (5 Finished Surfaces)	2.5	1.25	14*	3.6	8	1.1	96	96	
	End Sill (3 Finished Surfaces)	24.5	3.5	10*	73.5	1	2.7	131	131	
	Bridge Slab (Elevated Slab - Finished Top & Edge Surfaces)	24.5	24	15	735.0	1	27.2	649	31	588
	Bridge Slab Sills (Finished Top & Side Surfaces)	24.5	1.75	6*	21.4	2	1.6	25	49	
Totals							387.9	7578	7382	1446
* Represents the average measurement over the particular section. Actual measurement varies linearly										
Reinforcement Quantities		Area (sq ft)	Density (lbs/sf)	Weight (Tons)						
Parabolic Transition Base		858	10.43	4.47						
Parabolic Transition Walls		1418	8.09	5.73						
Parabolic Transition Top Slab		858	10.43	4.47						
Hydraulic Jump Basin Base		790	10.43	4.12						
Hydraulic Jump Basin Walls		1742	8.93	7.78						
Bridge Slab		588	10.43	3.07						
Total Reinforcement				29.64						
*Reinforcement density per computations										

5.79  
3.64  
2.8  
2.03  
7.4  
6.71  
3.8  
0.08  
2.1  
2.08  
1.2

0.76411

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No.09  
C43-S8 Main Outlet  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

C43-S8 CONCRETE QUANTITY SUMMARY					Elevated Slab
Main Outlet Section	Concrete (CY)	Reinforcement (Tons)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Conduit	1005.6	49.00	12315	9260	3660
Gatewell	108.6	6.12	2240	4040	0
Intake	609.0	31.66	11334	11460	0
Stilling Basin	387.9	29.64	7578	7382	1446
Totals	2111.1	116.42	33466	32141	5106

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S8 Main Outlet  
Quantity Estimate

Project No 17300.09 00  
5/17/2006

GATES AND MISCELLANEOUS				
Main Outlet Section	Item Description	Quantity	Units	Notes
Conduit Sheets 85, 86	Expansion Joint Waterstop Material	480	LF	8*(23*2+7*2)
	5'x6' Cast Iron Sluice Gates	4	EA	
Gatewell Sheet 86	Type-F Wall Thimble	4	EA	
	Gate Stem	124	LF	4*31
	Motor Actuators	4	EA	
	Heavy Duty Steel Grating	200	SF	2*(10*10)
	W8x31 I-Beam	40	LF	2*2*10
	Maintenance Ladder (Rungs)	66	EA	2*33
	Maintenance Ladder (Retractable Posts)	4	EA	
	Maintenance Ladder Safety Cage	48	LF	2*(33-9)
	2 1/2" Diam. Steel Railing (42" Height)	40	LF	
	8" PVC Pipe (Air Vent)	54	LF	2*27
	6'x8' Stainless Steel Slide Gates	10	EA	
	6'x8' Cast Iron Sluice Gates	2	EA	
Intake Sheet 87	Gate Stem	172	LF	2*(8+8+14+21+14+21)
	Watertight Motor Actuators	12	EA	
	Trash Strut Steel (3" x 1/4" Bars)	2042	LB	10*490*4167
	Heavy Duty Steel Grating	1551	SF	44*35.25
	Maintenance Ladder (Rungs)	69	EA	3*23
	Maintenance Ladder (Retractable Posts)	8	EA	
	Maintenance Ladder Safety Cage	28	LF	2*(23-9)
	10' Dewatering Needle Beam	2	EA	
Stilling Basin Sheet 88	Needle Beam Bulkhead	2	EA	
	2 1/2" Diam. Steel Railing (42" Height)	72.5		24.5+35+35
	2 1/2" Diam. Steel Bridge Railing (42" Height)	49	LF	2*24.5
	Steel Sheet Pile Cutoff	367.5	SF	15*24.5

Note: Riprap quantities included in civil dicipline estimates

$$172 + 124 = 296$$

$$1551 + 200 = 1751$$

$$69 + 66 = 135 \text{ EA}$$

$$6 + 4 = 10 \text{ EA}$$

$$48 + 28 = 76 \text{ LF}$$

$$73 + 40 + 49 = 162$$

**C-43 WEST STORAGE RESERVOIR PROJECT  
WO NO. C-C10401P-WO NO. 09**

**QUANTITY ESTIMATES  
C43-S12 – CELL BALANCING STRUCTURE**

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No 09  
C43-S12 Cell Balancing Structure  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

CONDUITS - CONCRETE										Elevated Slab
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft <sup>3</sup> )	Quan.	Concrete (CY)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Typical Conduit Sheets 155,156	Base (SOG - Finished Top Surface)	146	37.5	22	10037.5	1	371.8	4380	873	
	Center Haunch (SOG)	146	5	6	365.0	2	27.0	0	292	
	Top Slab (Elevated Slab - Finished Bottom Surface)	146	36	24	10512.0	1	389.3	4380	728	4380
	Walls (Walls - Finished inside surfaces)	146	6	18	1314.0	4	194.7	5256	7080	
Conduit at Gateway Sheets 155,156	Base (SOG - Finished Top Surface)	40	37.5	31*	3909.4	1	144.8	882	209	
	Top Slab (Elevated Slab - Finished Bottom Surface)	40	36	29*	3267.0	1	121.0	1296	513	810
	Walls (Walls - Finished Interior Surfaces)	40	6	195*	3904.5	1	144.6	1440	1920	
Totals							1393.2	17634	11414	5190

\* Represents the average measurement over the particular section.  
Actual measurement varies linearly.

Reinforcement Quantities	Length (ft)	Density (lbs/ft)	Weight (Tons)
Typical Conduit	146	750	54.75
Conduit at Gateway	40	750	15.00
Total Reinforcement			69.75

\*Reinforcement density  
per computations

18.61  
1.85  
19.49  
9.75  
7.24  
6.01  
7.24

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No 09  
 C43-S12 Cell Balancing Structure  
 Quantity Estimate

Project No 17300.09.00  
 5/17/2006

GATEWELL - CONCRETE										Elevated Slab
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft <sup>3</sup> )	Quan.	Concrete (CY)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Gateway Sheet 156	Walls (L to flow) (Walls - Finished Inside Surfaces)	27.5	36	18	1485.0	2	110.0	1980	4125	
	Walls (R to flow) (Walls - Finished Inside Surfaces)	27.5	10	18	412.5	4	61.1	1650	2200	
	Air Vent Casings	26.5	1.5	15*	51.3	3	5.7	358	358	
Totals							176.8	3988	6683	0
* Represents the average measurement over the particular section. Actual measurement varies linearly.										
Reinforcement Quantities		Length (ft)	Density (lbs/ft)	Weight (Tons)						
Gateway		27.5	765	10.52						
Total Reinforcement				10.52						
*Reinforcement density per computations										

6.55  
 3.44  
 3.07

Project No 17300.09.00  
5/17/2006

STILLING BASINS - CONCRETE										Elevated Slab	
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)	
Stilling Basin Parabolic Transition Sheet 157	Walls (Walls - Finished Interior Surface)	36	8*	18	432.0	4	64.0	1728	2304		
	Base (SOG - Finished Top Surface, Formed Top Surface)	37	36	18	1998.0	1	74.0	1221	219		
	Shear Key	36	2	24*	144.0	1	5.3		144		
	Top Slab (Elevated Slab - Finished Interior Surface)	28	36	24	2016.0	1	74.7	1416	184	840	
Stilling Hydraulic Jump Basin Sheet 157	Exterior Walls (Walls - Finished Inside Surface)	28	9	18	378.0	2	28.0	504	1035		
	Interior Short Walls (Walls - Finished Surfaces)	6	4.75*	18	42.8	2	3.2	144	144		
	Base (SOG - Finished Top Surface)	30	36	36	3240.0	1	120.0	1080	396		
	End Wall & Toe Support (Wall - Finished Interior Surface)	36	13	24*	936.0	1	34.7	342	988		
	Chute Blocks (4 Finished Surfaces)	1	1	12	1.0	15	0.6	45	45		
	Baffle Blocks (5 Finished Surfaces)	2.5	1.25	14*	3.6	12	1.6	144	144		
* Represents the average measurement over the particular section. Actual measurement varies linearly.							Totals	406.0	6624	5603	840
							x 2 Basins	811.9	13248	11206	1680

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Parabolic Transition Base	1332	10.43	6.95
Parabolic Transition Walls	1152	8.09	4.66
Parabolic Transition Top Slab	1008	10.43	5.26
Hydraulic Jump Basin Base	1080	8.43	4.55
Hydraulic Jump Basin Walls	972	10.43	5.07
Total Reinforcement			26.48
x 2 Basins			52.97

\*Reinforcement density per computations

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No. C-C10401P-WO No.09  
C43-S12 Cell Balancing Structure  
Quantity Estimate

Project No. 17300.09.00  
5/17/2006

C43-S12 CONCRETE QUANTITY SUMMARY					Elevated Slab
Cell Balancing Structure Section	Concrete (CY)	Reinforcement (Tons)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Conduit	1393.2	69.75	17634	11414	5190
Gatewell	176.8	10.52	3988	6683	0
Stilling Basins	811.9	52.97	13248	11206	1680
Totals	2382.0	133.24	34870	29303	6870



Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No. C-C10401P-WO No.09  
 C43 S12 Cell Balancing Structure  
 Quantity Estimate

Project No. 17300.09 00  
 5/17/2006

GATES AND MISCELLANEOUS				
Main Outlet Section	Item Description	Quantity	Units	Notes
Conduit Sheets 155,156	Expansion Joint Waterstop Material	588	LF	7*(35*2+7*2)
	5'x6' Cast Iron Sluice Gates	6	EA	
Gatewell Sheet 156	Type-F Wall Thimble	6	EA	
	Gate Stem	183	LF	6*30.5
	Motor Actuators	6	EA	
	Heavy Duty Steel Grating	300	SF	3*10*10
	W8x31 I-Beam <i>1860 lb</i>	60	LF	3*2*10
	Maintenance Ladder (Rungs)	99	EA	3*33
	Maintenance Ladder (Retractable Posts)	4	EA	
	Maintenance Ladder Safety Cage	70.5	LF	3*(32.5-9)
	2 1/2" Diam. Steel Railing (42" Height)	62	LF	
	8" PVC Pipe (Air Vent)	58	LF	3*26.5
Stilling Basins Sheet 157	8" Diam. Trash Strut	258 <del>x</del> <i>28.65 = 7365 lb</i>	LF	3*3*10+3*2*28
Note: Riprap quantities included in civil discipline estimates				

**C-43 WEST STORAGE RESERVOIR PROJECT  
WO NO. C-C10401P-WO NO. 09**

**QUANTITY ESTIMATES  
C43-CS1 – CREST SPILLWAY**

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No.09  
 C43-CS1 Crest Spillway  
 Quantity Estimate

Project No 17300.09.00  
 5/17/2006

CONDUITS - CONCRETE										Elevated Slab
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Boxed Conduit Sheets 194, 195	Conduit Base (SOG - Finished Top Surface)	82	13	18	1599.0	1	59.2	820	246	
	Conduit Top Slab (Elevated Slab - Finished Bottom Surface)	82	12	18	1476.0	1	54.7	820	246	820
	Conduit Walls (Walls - Finished inside surfaces)	82	6	12	492.0	2	36.4	984	1968	
U-Shape Conduit Sheets 194, 195	Conduit Base (SOG - Finished Top Surface)	90	13	18	1755.0	1	65.0	900	270	
	Conduit Walls (Walls - Finished inside surfaces)	90	6	12	540.0	2	40.0	1080	2160	
Totals							255.3	4604.0	4890.0	820.0
* Represents the average measurement over the particular section Actual measurement varies linearly.										
Reinforcement Quantities		Length (ft)	Density (lbs/ft)	Weight (Tons)						
Boxed Conduit		82	210	8.61						
U-Shape Conduit		90	140	6.30						
Total Reinforcement				14.91						
*Reinforcement density per computations										

3.16

3.20

2.13

3.80

2.31

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No. C-C10401P-WO No 09  
 C43-CS1 Crest Spillway  
 Quantity Estimate

Project No 17300.09.00  
 5/17/2006

WEIR INLET - CONCRETE										Elevated Slab	
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)	
Weir Inlet Sheet 195	Base Slab (SOG - Finished Top Surface)	44	48	15	2640.0	1	97.8	1455	230		
	Weir (Finished Curved Surface)	73	9	32*	1752.0	1	64.9	876	365		
	Transition to Conduit (Walls - Curved Sections, Finished Inside Surfaces)	9	11	15	123.8	2	9.2	198	396		
* Represents the average measurement over the particular section Actual measurement varies linearly.							Totals	171.8	2529.0	991.0	0.0

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Base Slab	2112	10.43	11.01
Transition to Conduit	99	8.09	0.40
	Length (ft)	Density (lbs/ft)	Weight (Tons)
Weir	73	33.09	1.21
Total Reinforcement			12.62

\*Reinforcement density  
per computations

7.18  
 4.77  
 6.6

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No 09  
C43-CS1 Crest Spillway  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

STILLING BASIN - CONCRETE										Elevated Slab
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan.	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)
Transition to Stilling Basin Sheet 196	Walls (Walls - Finished Inside Surfaces)	64	15.5*	22*	1818.7	2	134.7	1934	3968	
	Base (SOG - Finished Top Surface)	67.5	16.5	27*	2505.9	1	92.8	675	378	
	Top Slab (Elevated Slab - Finished Bottom Surface)	64	13	12	832.0	1	30.8	832	90	640
Stilling Hydraulic Jump Basin Sheet 196	Walls (Walls - Finished Inside Surface)	60	26	20*	2600.0	2	192.6	3120	6240	
	Base (SOG - Finished Top Surface)	60	16.5	36	2970.0	1	110.0	600	459	
	Shear Key	16.5	2	21	57.8	1	2.1		66	
	Chute Blocks (4 Finished Surfaces)	1.5	1	12	1.5	5	0.3	35	20	
	End Sill (3 Finished Surfaces)	10	3	12	30.0	1	1.1	50	30	
	Bridge Slab (Elevated Slab - Finished Top & Bottom Surfaces)	24	13	15	390.0	1	14.4	480	93	240
	Top Slab (Elevated Slab - Finished Bottom Surface)	22	13	12	286.0	1	10.6	220	48	220
Totals							589.5	7996.0	11391.5	1100.0

\* Represents the average measurement over the particular section.  
Actual measurement varies linearly

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Drop Transition Base	1114	10.43	5.81
Drop Transition Walls	736	8.93	3.29
Drop Transition Top Slab	832	10.43	4.34
Hydraulic Jump Basin Base	990	10.43	5.16
Hydraulic Jump Basin Walls	1560	8.93	6.97
Bridge Slab	312	10.43	1.63
Top Slab	286	10.43	1.49
Total Reinforcement			28.68

\*Reinforcement density  
per computations

6.45

4.145

1.418

9.23

5.27

.01

.05

.69

.51

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No 09  
C43-CS1 Crest Spillway  
Quantity Estimate

Project No 17300.09 00  
5/17/2006

C43-CS1 CONCRETE QUANTITY SUMMARY					Elevated Slab
Crest Spillway Section	Concrete (CY)	Reinforcement (Tons)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Fomwork (ft <sup>2</sup> )
Conduits	255.3	14.91	4604	4890	820
Weir Inlet	171.8	12.62	2529	991	0
Stilling Basin	589.5	28.68	7996	11392	1100
Totals	1016.7	56.2	15129	17273	1920

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No 09  
 C43-CS1 Crest Spillway  
 Quantity Estimate

Project No 17300.09.00  
 5/17/2006

MISCELLANEOUS				
Section	Item Description	Quantity	Units	Notes
Conduit Sheets 194, 195	Expansion Joint Waterstop Material	92	LF	4*(6*2+11)
Weir Inlet Sheet 195				
Stilling Basin Sheet 196	Expansion Joint Waterstop Material	73	LF	1*(25*2+11.5*2)
	10' Dewatering Needle Beam	1	EA	
	Needle Beam Bulkhead	1	EA	
	2 1/2" Diam Steel Railing (42" Height)	13	LF	35+35+24.5
	2 1/2" Diam Steel Bridge Railing (42" Height)	26	LF	2*13
	Steel Sheet Pile Cutoff	247.5	SF	15*16.5
Note: Riprap quantities included in civil dicipline estimates				

**C-43 WEST STORAGE RESERVOIR PROJECT  
WO NO. C-C10401P-WO NO. 09**

**QUANTITY ESTIMATES  
C43-CS2 – CREST SPILLWAY**



Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No. C-C10401P-WO No 09  
 C43-CS2 Crest Spillway  
 Quantity Estimate

Project No. 17300.09.00  
 5/17/2006

CONDUITS - CONCRETE										Elevated Slab	
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft <sup>3</sup> )	Quan.	Concrete (CY)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	
Boxed Conduit Sheets 194, 195	Conduit Base (SOG - Finished Top Surface)	82	13	18	1599.0	1	59.2	820	246		
	Conduit Top Slab (Elevated Slab - Finished Bottom Surface)	82	12	18	1476.0	1	54.7	820	246	820	
	Conduit Walls (Walls - Finished inside surfaces)	82	6	12	492.0	2	36.4	984	1968		
U-Shape Conduit Sheets 194, 195	Conduit Base (SOG - Finished Top Surface)	58	13	18	1131.0	1	41.9	580	174		
	Conduit Walls (Walls - Finished inside surfaces)	58	6	12	348.0	2	25.8	696	1392		
* Represents the average measurement over the particular section. Actual measurement varies linearly							Totals	218.0	3900.0	4026.0	820.0

Reinforcement Quantities	Length (ft)	Density (lbs/ft)	Weight (Tons)
Boxed Conduit	82	210	8.61
U-Shape Conduit	58	140	4.06
Total Reinforcement			12.67

\*Reinforcement density  
per computations

3.42

3.16

2.16

2.42

1.50

Stanley Consultants Inc  
 Computed By: JRJ  
 Checked By: SDG

C-43 West Storage Reservoir Project  
 WO No C-C10401P-WO No 09  
 C43-CS2 Crest Spillway  
 Quantity Estimate

Project No 17300.09.00  
 5/17/2006

WEIR INLET - CONCRETE										Elevated Slab	
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft³)	Quan	Concrete (CY)	Finish (ft²)	Formwork (ft²)	Formwork (ft²)	
Weir Inlet Sheet 195	Base Slab (SOG - Finished Top Surface)	44	48	15	2640.0	1	97.8	1455	230		
	Weir (Finished Curved Surface)	73	9	32"	1752.0	1	64.9	876	365		
	Transition to Conduit (Walls - Curved Sections, Finished Inside Surfaces)	9	11	15	123.8	2	9.2	198	396		
* Represents the average measurement over the particular section. Actual measurement varies linearly.							Totals	171.8	2529.0	991.0	0.0

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Base Slab	2112	10.43	11.01
Transition to Conduit	99	8.09	0.40
	Length (ft)	Density (lbs/ft)	Weight (Tons)
Weir	73	33.09	1.21
Total Reinforcement			12.62

\*Reinforcement density  
per computations

718  
 4.77  
 68

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No.09  
C43-CS2 Crest Spillway  
Quantity Estimate

Project No. 17300.09.00  
5/17/2006

STILLING BASIN - CONCRETE										Elevated Slab	
Section	Description	Length (ft)	Width (ft)	Thickness (in)	Volume (ft <sup>3</sup> )	Quan	Concrete (CY)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	
Transition to Stilling Basin Sheet 196	Walls (Walls - Finished Inside Surfaces)	44	12.5*	32*	1466.7	2	108.6	1100	2200		
	Base (SOG - Finished Top Surface)	46.5	16.5	27*	1726.3	1	63.9	465	284		
Stilling Hydraulic Jump Basin Sheet 196	Walls (Walls - Finished Inside Surface)	32.25	19	21*	1072.3	2	79.4	1226	2451		
	Base (SOG - Finished Top Surface)	32.25	16.5	36	1596.4	1	59.1	323	293		
	Shear Key	16.5	2	21	57.8	1	2.1		66		
	Chute Blocks (4 Finished Surfaces)	1.5	1	12	1.5	5	0.3	35	20		
	Baffle Blocks (5 Finished Surfaces)	2.5	1.25	14*	3.6	4	0.5	96	96		
	End Sill (3 Finished Surfaces)	10	3	12	30.0	1	1.1	50	30		
	Bridge Slab (Elevated Slab - Finished Top, Bottom & Edge Surfaces)	24	13	15	390.0	1	14.4	480	93	240	
* Represents the average measurement over the particular section. Actual measurement varies linearly.							Totals	329.6	3774.0	5531.5	240.0

Reinforcement Quantities	Area (sq ft)	Density (lbs/sf)	Weight (Tons)
Drop Transition Base	767	10.43	4.00
Drop Transition Walls	506	8.93	2.26
Hydraulic Jump Basin Base	532	10.43	2.78
Hydraulic Jump Basin Walls	613	8.93	2.74
Bridge Slab	312	10.43	1.63
Total Reinforcement			13.40

\*Reinforcement density per computations

4.42

2.6

3.23

2.4

0.09

0.01

0.02

0.04

59

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C-C10401P-WO No.09  
C43-CS2 Crest Spillway  
Quantity Estimate

Project No 17300.09.00  
5/17/2006

C43-CS2 CONCRETE QUANTITY SUMMARY					Elevated Slab
Crest Spillway Section	Concrete (CY)	Reinforcement (Tons)	Finish (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )	Formwork (ft <sup>2</sup> )
Conduits	218.0	12.67	3900	4026	820
Weir Inlet	171.8	12.62	2529	991	0
Stilling Basin	329.6	13.40	3774	5532	240
Totals	719.5	38.7	10203	10549	1060

Stanley Consultants Inc  
Computed By: JRJ  
Checked By: SDG

C-43 West Storage Reservoir Project  
WO No C C10401P-WO No 09  
C43-CS2 Crest Spillway  
Quantity Estimate

Project No. 17300.09 00  
5/17/2006

MISCELLANEOUS				
Section	Item Description	Quantity	Units	Notes
Conduit Sheets 195,199	Expansion Joint Waterstop Material	92	LF	4*(6*2+11)
Weir Inlet Sheet 195				
Stillling Basin Sheet 200	10' Dewatering Needle Beam	1	EA	
	Needle Beam Bulkhead	1	EA	
	2 1/2" Diam Steel Bridge Railing (42" Height)	26	LF	2*13
	Steel Sheet Pile Cutoff	247.5	SF	15*16.5
Note: Riprap quantities included in civil dicipline estimates				



**CONCRETE MODULAR SYSTEMS, INC.**



## PROPOSAL

Stanley Consultants  
225 Iowa Ave  
Muscatine, IA 52761

Date: May 25, 2006  
PH#: 1-563-264-6717  
Fax#: 1-563-264-6658

Attn: Mr Tony Reinking

### RE: SFWMD 12'-0"x22'-0"x10'-0" Control Building with Generator Room

Concrete Modular Systems, Inc is pleased to provide a quote to supply 1ea 12'-0"x22'-0"x10'-0" Precast Concrete Building for the above-mentioned job. The building will be designed to meet 2004 Florida Building Code and ACI-318-99 and ACI-318R-99. The scope of work per building will exclude anything not specifically listed below:

#### Design Loads:

Roof Live Load	65 PSF	Wind Load	155 MPH	Earthquake Zone 1
Floor Live Load	125 PSF	Floor Dead Load	63 PSF	

- 1ea DCA Approved Shop Drawings and Submittal Data
- 1ea 12'-0"x22'-0"x10'-0" Pre-Engineered Concrete Building "Semi Smooth Finish"
- 2ea 4'x7' 14ga Imp. Door R-14.9 w/ Knob Lockset, Steel Lock Box UL752 Level IV
- 2ea Dripcap, Weather stripping and Door Sweep
- 1ea Weld Plate Less Design (No weldplates in interior)
- 1ea Interior Finish Walls and Floor Light Broom Finish Sealed and Painted
- 2ea 18" x 18" Galv Louver With SS Insect Screen and Galv Steel Hood
- 1ea 24" x 24" Galv Louver With SS Insect Screen and Galv Steel Hood
- 2ea 36" x 36" Galv Louver With SS Insect Screen and Galv Steel Hood
- 1ea Dayton Fan # 2C719
- 1ea All Openings and Penetrations per Owners Recommendation Prior to Casting
- 1ea Protective Coating System as Specified FCD Gray or Color by Owner

The total cost for the scope of work per building will be \$ 39,001.58, FOB to the jobsite Off-loaded by Concrete Modular Systems Inc. personnel. The jobsite must be accessible for a 55ft tractor-trailer and crane together. The price does not include Federal, State, or Local Taxes. The pricing of this proposal is valid 30 days from the date of proposal. Terms are NEI 30 Days upon Completion, Delivered or Stored.

Bid derived from Drawing # G-S7 1 of 2 only.

Proposal prepared and submitted by:

Frederick L. Kennedy Jr.  
General Manager

Proposal accepted by:

"Solutions Cast In Concrete"

P O Box 531573 \* St Petersburg, FL \* 33747-1573 \* 727-945-1864 \* FX 727-945-9756 \* 866-CMS-HUTS (267-4887)  
Stanley122210 ■ WWW.CMSHuts.com



CONCRETE MODULAR SYSTEMS, INC.



## PROPOSAL

Stanley Consultants  
225 Iowa Ave  
Muscatine, IA 52761

Date: May 25, 2006  
PH#: 1-563-264-6717  
Fax#: 1-563-264-6658

Attn: Tony Reinking

### RE: SFWMD 8'-0"x8'-0"x10'-0" Control Building

Concrete Modular Systems, Inc. is pleased to provide a quote to supply 1ea 8'-0"x8'-0"x10'-0" Precast Concrete Building for the above-mentioned job. The building will be designed to meet 2004 Florida Building Code and ACI-318-99 and ACI-318R-99. The scope of work per building will exclude anything not specifically listed below:

#### Design Loads:

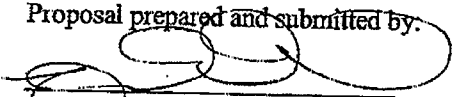
Roof Live Load	65 PSF	Wind Load	155 MPH	Earthquake Zone 1
Floor Live Load	125 PSF	Floor Dead Load	63 PSF	

- 1ea DCA Approved Shop Drawings and Submittal Data
- 1ea 8'-0"x8'-0"x10'-0" Pre-Engineered Concrete Building "Semi Smooth Finish"
- 1ea 3'x7' 14ga Imp. Door R-14 9 w/ Knob Lockset, UL 752 Level IV
- 1ea Dripcap, Weather stripping and Door Sweep
- 1ea Weld Plate Less Design (No weldplates in interior)
- 1ea Interior Finish Walls and Floor Light Broom Finish Sealed and Painted
- 1ea 18" x 18" Galv Louver With SS Insect Screen and Galv Steel Hood
- 1ea All Openings and Penetrations per Owners Recommendation Prior to Casting
- 1ea Protective Coating System as Specified FCD Gray Color by Owner

The total cost for the scope of work per building will be \$ 14,553.22, ea, FOB to the jobsite Off-loaded by Concrete Modular Systems Inc. personnel. The jobsite must be accessible for a 55ft tractor-trailer and crane together. The price does not include Federal, State, or Local Taxes. The pricing of this proposal is valid 30 days from the date of proposal. Terms are NET 30 Days upon Completion, Delivered or Stored.

Bid derived from Drawing # G-S8 1 of 2 only.

Proposal prepared and submitted by:

  
Frederick L. Kennedy Jr.  
General Manager

Proposal accepted by:

\_\_\_\_\_

"Solutions Cast In Concrete"

P O Box 531573 \* St Petersburg, FL \* 33747-1573 \* 727-945-1864 \* FX 727-945-9756 \* 866-CMS HUIS (267-4887)  
Stanley080810 ■ WWW.CMSHuts.com

## Reinking, Tony

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**From:** Jensen, Glenn  
**Sent:** Wednesday, May 24, 2006 8:10 AM  
**To:** Reinking, Tony  
**Subject:** FW: C-43

12' x 22'  
8' x 8'  
BRICK

Can you get a price for a 12' x 22' & an 8' x 8'

---

**From:** Huskey, Eric  
**Sent:** Wednesday, May 24, 2006 8:07 AM  
**To:** Ahlschwede, Jon; Jensen, Glenn  
**Cc:** Grounds, Dave; Brugger, Wayne; Ramey, John; Dreyer, Daniel; Walker, Wes; Tripmacker, Steve  
**Subject:** RE: C-43

A control building fabricator that has been used on a previous SFWMD job was:

Concrete Modular Systems, Inc  
P O. Box 531573  
St. Petersburg, FL 33747-1573  
Tel: (727) 945-1864  
Fax: (727) 945-9756

CONCRETE MODULAR @ AOL.COM

A contact at this firm is:

Frederick L. Kennedy Jr – General Manager  
F.Kennedy@CMSHUTS.COM

**Eric Huskey, P.E.**  
Structural Engineer  
Stanley Consultants

Phone: (561) 689-7444  
Fax: (561) 689-3003  
Email: huskeyeric@stanleygroup.com

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**From:** Ahlschwede, Jon  
**Sent:** Wednesday, May 24, 2006 8:25 AM  
**To:** Jensen, Glenn  
**Cc:** Grounds, Dave; Brugger, Wayne; Ramey, John; Dreyer, Daniel; Walker, Wes; Tripmacker, Steve; Huskey, Eric  
**Subject:** RE: C-43  
**Importance:** High

Attached are the pdf's of the 2 control bldgs we are using  
We are using the larger building at all water control structures. We are using the smaller building at PS-1 only

Hope this helps. Contact John Ramey if you need more info

<< File: G-S7\_01 Control Bldg with Gen\_Plan pdf >> << File: G-S8\_01 Control Bldg no Gen\_Plan pdf >>  
Eric,

Do you know if the District has a prefab preference ???

Jon



**From:** Jensen, Glenn  
**Sent:** Wednesday, May 24, 2006 8:15 AM  
**To:** Ahlschwede, Jon  
**Cc:** Grounds, Dave; Brugger, Wayne  
**Subject:** C-43

Can one of you fine gentlemen send me the size of the typical precast control buildings I'm going to see about getting a price Does South Florida have a standard manufacturer they use?

Thanks

Glenn

GENERAL DECISION: FL20030093 FL93

Date: June 13, 2003

General Decision Number: FL20030093

Superseded General Decision No FL020093

State: Florida

Construction Type:

BUILDING

County(ies):

LEE

BUILDING CONSTRUCTION PROJECTS (does not include single family  
homes and apartments up to and including four stories)

Modification Number	Publication Date
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0	06/13/2003
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COUNTY(ies):

LEE

SUFL1052A 08/01/1993

Rates

Fringes

LEE COUNTY

ACOUSTICAL TILE INSTALLERS

10 57

GENERAL DECISION: FL20030032 04/14/2006 FL32

Date: April 14, 2006

General Decision Number: FL20030032 04/14/2006

Superseded General Decision Number: FL020032

State: Florida

Construction Type: Heavy

Counties: Broward, Collier, Lee, Martin, Miami-Dade, Palm Beach and St Lucie in Florida

HEAVY CONSTRUCTION PROJECTS (Excluding Sewer & Water Lines)

Modification Number	Publication Date
0	06/13/2003
1	01/23/2004
2	04/09/2004
3	05/28/2004
4	08/27/2004
5	01/28/2005
6	04/08/2005
7	08/12/2005
8	09/23/2005
9	12/16/2005
10	04/14/2006

CARP1026-002 08/01/2002

	Rates	Fringes
Piledriverman	\$ 20.25	4.70

ELEC0323-001 09/05/1993

MARTIN, PALM BEACH, AND ST LUCIE COUNTIES

	Rates	Fringes
Electrician	\$ 15 88	21.5%

ELEC0349-002 09/01/2005

DADE COUNTY

	Rates	Fringes
Electricians:		
Electrical contracts including materials that are \$2,000,000 and over	\$ 25 46	6 05+8%
Electrical contracts: including-materials that are less than \$2,000,000	\$ 23 00	6 05+8%

ELEC0728-001 09/05/2005

BRICKLAYERS/BLOCKLAYERS	12.00	
CARPENTERS (including drywall hanging and metal framing; excluding acoustical tile installations)	10.61	
CEMENT MASONS/CONCRETE FINISHERS	10.26	
ELECTRICIANS	10.38	57
GLAZIERS	11.28	50
HVAC MECHANICS (including HVAC pipe & duct)	10.11	68
IRONWORKERS, STRUCTURAL	9.29	1.61
IRONWORKERS, REINFORCING	10.52	
LABORERS,		
Unskilled	6.83	
Landscape	5.15	
Mason tenders	7.65	
PAINTERS, BRUSH (excluding drywall finishing)	9.57	
PIPEFITTERS (including fire sprinkler systems & excluding HVAC work)	10.57	76
PLASTERERS	13.00	
Plumber (excluding HVAC)	10.96	1.30
POWER EQUIPMENT OPERATORS		
Grader	10.00	75
Loader	8.50	43
ROOFERS	9.56	
SHEET METAL WORKERS (excluding HVAC duct)	9.68	
TILE SETTERS	12.00	

TRUCK DRIVERS

8 24

1 10

-----  
WELDERS - Receive rate for craft performing operation to which  
welding is incidental  
-----

Unlisted classifications needed for work not included within  
the scope of the classifications listed may be added after  
award only as provided in the labor standards contract clauses  
(29 CFR 5 5(a)(1)(ii))  
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In the listing above, the "SU" designation means that rates  
listed under that identifier do not reflect collectively  
bargained wage and fringe benefit rates. Other designations  
indicate unions whose rates have been determined to be  
prevailing.

#### WAGE DETERMINATION APPEALS PROCESS

1 ) Has there been an initial decision in the matter? This can  
be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a  
position on a wage determination matter
- \* a conformance (additional classification and rate)  
ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2 ) and 3 ) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the

interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue

3 ) If the decision of the Administrator is not favorable, an

interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board) Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D C 20210

4 ) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

## BROWARD AND COLLIER COUNTIES

	Rates	Fringes
Electrician . . . . .	\$ 24 46	12-1/2%+\$5 60

-----  
ELEC0915-001 12/01/2004

## LEE COUNTY

	Rates	Fringes
Electrician . . . . .	\$ 21 63	32%+\$0 25

-----  
\* ENGI0487-002 07/01/2005

## DADE COUNTY

	Rates	Fringes
Power equipment operators:		
Backhoes, Bulldozers . . . . .	\$ 19 25	6 40
Cranes . . . . .	\$ 23 98	6 40
Oilers . . . . .	\$ 17 20	6 40

-----  
ENGI0487-003 07/01/2005

## BROWARD, COLLIER, LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES

	Rates	Fringes
Power equipment operators:		
All Tower Cranes and All		
Cranes with boom length		
150 ft and over . . . . .	\$ 24 75	7.40
Cranes with boom length		
less than 150 ft		
Backhoes, and Bulldozers . . . . .	\$ 24 02	7 40
Oilers . . . . .	\$ 19 54	7.40

-----  
PLUM0630-001 01/01/2003

## LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES

	Rates	Fringes
Pipefitter . . . . .	\$ 26 81	5.91

-----  
\* PLUM0725-002 06/30/2005

## BROWARD AND DADE COUNTIES

	Rates	Fringes
Pipefitter . . . . .	\$ 25 55	9 35

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SUFL1990-006 01/26/1990

	Rates	Fringes
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Carpenter	\$ 12.71	2.71
Cement Mason	\$ 10.50	
Laborer	\$ 5.72	
Power equipment operators:		
Loaders	\$ 11.25	2.55

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental

=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

---

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing

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#### WAGE DETERMINATION APPEALS PROCESS

1 ) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2 ) and 3 ) should be followed.

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Wage and Hour Division  
U S Department of Labor  
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Washington, DC 20210

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review and reconsideration from the Wage and Hour Administrator  
(See 29 CFR Part 1 8 and 29 CFR Part 7) . Write to:

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U S Department of Labor  
200 Constitution Avenue, N W  
Washington, DC 20210

The request should be accompanied by a full statement of the  
interested party's position and by any information (wage  
payment data, project description, area practice material,  
etc ) that the requestor considers relevant to the issue

3 ) If the decision of the Administrator is not favorable, an  
interested party may appeal directly to the Administrative  
Review Board (formerly the Wage Appeals Board) . Write to:

Administrative Review Board  
U S Department of Labor  
200 Constitution Avenue, N W  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====  
END OF GENERAL DECISION

GENERAL DECISION: FL20030097 FL97

Date: June 13, 2003

General Decision Number: FL20030097

Superseded General Decision No FL020097

State: Florida

Construction Type:

HEAVY

County(ies):

DE SOTO	HENDRY	OKEECHOBEE
GLADES	HIGHLANDS	
HARDEE	MONROE	

HEAVY CONSTRUCTION PROJECTS (including Sewer & Water Line  
Construction & Drainage Projects )

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

DE SOTO	HENDRY	OKEECHOBEE
GLADES	HIGHLANDS	
HARDEE	MONROE	

SUFL2023A 10/01/1994

	Rates	Fringes
CARPENTERS	12 00	
ELECTRICIANS	14 50	
LABORERS:		
Unskilled	7 81	
Pipelayers	9 00	
PIPEFITTERS	10 00	
POWER EQUIPMENT OPERATORS;		
Backhoe	12 00	
Grader	12 00	
Loader	12 00	
Tractor	12 00	
Trenching Machine	13 50	
TRUCK DRIVERS	10 00	

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WELDERS - Receive rate prescribed for craft performing operation  
to which welding is incidental

=====

Unlisted classifications needed for work not included within  
the scope of the classifications listed may be added after  
award only as provided in the labor standards contract clauses  
(29 CFR 5.5(a)(1)(ii)).

-----

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing

#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

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3 ) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board) Write to:

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U S Department of Labor  
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Washington, D C 20210

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END OF GENERAL DECISION

Quantity take-off for Structure S-3									
Item	Quantity	Length ft	Width ft	Thickness ft	Area sq	Volume cu	Weight CY	Weight tons	
Spreads Footings:									
Formwork									
Concrete									
Reinforcement									
Fishies									
SO G:									
Rolling S&B in Concrete									
Formwork	2	20.00	20	1	184.00				
Concrete		20.00	20	1	500.00	1040.00	30.32		
Reinforcement	0.016					1.50		2.90	
Fishies					624.00				
Rebar / Approach Slab:									
Concrete	4	15	15	1	22.00	200.00	8.20		
Reinforcement	2	15	15	1	22.00	3.00		0.90	
Fishies					250.00				
Apron Slab:									
Concrete	3	48.40	80	1.5	313.30	1194.30	44.51		
Reinforcement	1	48.40	80	1.5	796.20	500.20		3.61	
Formwork	2	20.00	20	1	500.00	1040.00	31.14		
Fishies					1794.00				
Walls:									
Concrete (Upstream):									
Concrete	4	10.00	10.00	1.50	150.00				
Reinforcement	0.016				60.00				
Fishies					150.00				
Concrete (downhill):									
Concrete	4	14.40	1.60	1.50	138.20	138.20	6.10		
Reinforcement	0.016					1.50			
Fishies					14.40				
PIR:									
Concrete	4	1.50	17.50	1.50	80.00				
Reinforcement	0.016				30.00				
Fishies					80.00				
Exitway Walls:									
Formwork	4	20.00	10.00	1.50	300.00				
Concrete	2	20.00	10.00	1.50	120.00	60.00	2.20		
Reinforcement	0.016					1.50			
Fishies					300.00				
Drainage Walls:									
Formwork	2	20.00	10.00	1.50	240.00				
Concrete	1	20.00	10.00	1.50	120.00	60.00	2.20		
Reinforcement	0.016					1.50			
Fishies					240.00				
Down Wall:									
Formwork	4	20.00	10.00	1.50	240.00				
Concrete	2	20.00	10.00	1.50	120.00	60.00	2.20		
Reinforcement	0.016					1.50			
Fishies					240.00				
Columns (for parking Pad):									
Formwork	4	20.00	10.00	1.50	240.00				
Concrete	2	20.00	10.00	1.50	120.00	60.00	2.20		
Reinforcement	0.016					1.50			
Fishies					240.00				
Water (under other slab):									
Formwork	4	20.00	10.00	1.50	240.00				
Concrete	2	20.00	10.00	1.50	120.00	60.00	2.20		
Reinforcement	0.016					1.50			
Fishies					240.00				





File name: Q:\17300\07-Design\03-CostEst\Structures 30% Subtotal Quantity Take-off\Quantity Take off for S-3, S-10 & S-11.xls

Quantity take-off for Structure S-10

Item	Quantity	Length ft	Width ft	Thickness/Height ft	Linear ft	Area sq ft	Volume cu ft	Volume CY	Weight long tons
<b>Spread Footing:</b>									
Formwork									
Concrete									
Reinforcement									
Finishes									
<b>SOG:</b>									
<b>Bridge Approach Slab:</b>									
Formwork	4	10	13	1		92.00			
Concrete	2	10	13	1		260.00	260.00	9.63	
Reinforcement	0.015						3.90		0.95
Finishes						280.00			
<b>Ladder Platform:</b>									
Formwork	2	6	8	0.5		14.00			
Concrete	1	8	8	0.5		48.00	24.00	0.88	
Reinforcement	0.008						0.19		0.05
Finishes						48.00			
<b>Access Slab:</b>									
Formwork	2	63.78	54.00	3.50		624.47			
Concrete	2	63.78	54.00	3.50		3444.20	12654.36	488.47	53.14
Reinforcement	0.0214						287.73		
Finishes						3289.37			
<b>Walls:</b>									
<b>Abutment:</b>									
Formwork	4	48.23				4162.48			
Concrete	2	63.78	2.50	15.70			6008.85	185.44	
Reinforcement	0.015						75.10		18.40
Finishes						4481.387			
<b>Pier:</b>									
Formwork	8	48.18				3785.8823			
Concrete	3	37.13	3.00	15.70			9254.59	184.41	
Reinforcement	0.015						78.82		19.31
Finishes						4120.35			
<b>Columns (Supporting Platform):</b>									
<b>AT Abutment:</b>									
Formwork	4								
Concrete	4	10.50		11.50		483.00			
Reinforcement	1						423.14	15.07	
Finishes	0.023						10.86		2.89
<b>AT Pier:</b>									
Formwork	4	11.00							
Concrete	4			11.50		508.00	478.28	17.71	
Reinforcement	0.023						11.86		2.93
Finishes						503.00			
<b>Weir (under roller gate):</b>									
Formwork	1	14		4.70		65.8			
Concrete							542.93	20.11	
Reinforcement	0.018						8.14		2.00
Finishes						281.11			

Quantity take-off for Structure S-10

510

Item	Quantity	Length ft	Width ft	Thickness/Height ft	Linear ft	Area sq ft	Volumes cu ft	Volume CY	Weight tons
<b>Sill (under weir gate):</b>									
Formwork	2		20	4.70		188			
Concrete							198.87	5.80	
Reinforcement	0.025						3.82		0.95
Finishes						221.33			
<b>Baffles:</b>									
Formwork	28	5.76		1.50		380.84			
Concrete	28			1.50		5.95	232.24	8.90	
Reinforcement	0.008						1.38		0.48
Finishes						533.51			
<b>Elevated Slabs:</b>									
<b>Service bridge slab:</b>									
Formwork	1	45	18.5			877.3			
Edges	2	45		1.50		185.00			
Reinforcement	0.025	45	18.5	1.33		877.36	1318.26	48.78	8.08
Finishes		38	51	1.33		1820.00	92.41		
<b>Operating Platform:</b>									
Formwork	1	45	8.00			360			
Edges	2	45		1.50		135.00			
Reinforcement	0.025	45	8.00	1.50		360.00	852.50	24.17	4.00
Finishes		38	51	1.33		880.00	18.31		
<b>Breast Wall:</b>									
Formwork	2	20	1.00	6.25		270	128	4.63	0.48
Concrete	1						1.38		
Reinforcement	0.018								
Finishes						280			
<b>Sheet Piling:</b>									
<b>Sheetpile:</b>									
Upstream facing sheet pile	0	63.78		8.00		0.00			
Downstream facing sheet pile	2	75.78		8.00		75.78			
Perforated facing sheet pile (upstream)	1	54.00		8.00		54.00			
Perforated facing sheet pile (downstream)	2	66.00		8.00		66.00			
Upstream wingwalls	2	30.00		27.20		2448.00			
Downstream wingwalls	2	38.50		24.20		2785.10			
<b>Pile Cap:</b>									
Formwork	4	30.00	2	2.00		720.00			
Concrete	4	30.00	2.00	2.00			480.00	17.78	
Reinforcement	0.008						3.84		0.94
Finishes						460.00			
<b>Seal Concrete:</b>									
Concrete (poor strength)	1	74.78	66	5.00			24628.59	912.18	
<b>Control Building:</b>									
Precast Control Bldg	1								
<b>Excavation:</b>									
Excavation	1	75.78	85.00	28.30			14729.338	6454.88	
<b>Erosion Control System:</b>									
Erosion Control Fabric	4	20	51.70	0.5		6256.31	3167.50	118.58	
Grading Rock	1			1.5			8443.31	349.77	
Rip-rap	1								

36975

Quantity take-off for Structure S-11

Item	Quantity	Length ft	Width ft	Thickness/Height ft	Linear ft	Area sq ft	Volume cu ft	Volume CY	Weight tons
<b>Spread Footing:</b>									
Formwork	4	10	13	1		52.00			
Concrete	2	10	13	1		260.00	260.00	9.63	
Reinforcement	0.016						3.90		0.96
Finishes						260.00			
<b>SOG:</b>									
<b>Bridge Approach Slab:</b>									
Formwork	4	10	13	1		52.00			
Concrete	2	10	13	1		260.00	260.00	9.63	
Reinforcement	0.016						3.90		0.96
Finishes						260.00			
<b>Ladder Platform:</b>									
Formwork	2	6	6	0.5		14.00			
Concrete	1	6	6	0.5		48.00	24.00	0.89	
Reinforcement	0.004						0.10		0.02
Finishes						48.00			
<b>Apron Slab:</b>									
Formwork	2	77.07	71.00	3.39		7656.51			
Concrete	1			3.39		5472.18	18152.62	769.36	
Reinforcement	0.0214						409.48		100.32
Finishes		77.07	71.00			4091.70			
<b>Walls:</b>									
<b>Abutment:</b>									
Formwork	4	79.57		21.40		8311.44			
Concrete	2	77.07	2.50	21.40		8243.83	8243.83	366.44	
Reinforcement	0.016						123.76		30.31
Finishes						7196.89628			
<b>Pier:</b>									
Formwork	6	92.26		21.40		6708.3			
Concrete	3	49.26	3.00	21.40		6708.3	9485.55	397.32	
Reinforcement	0.016						142.28		34.96
Finishes						7162.16			
<b>Columns (Supporting Platform):</b>									
<b>At Abutments:</b>									
Formwork	4	10.40		11.50		483.00			
Concrete	1						423.14	15.67	
Reinforcement	0.029						10.58		2.59
Finishes						483.00			
<b>At Piers:</b>									
Formwork	4	11.00		11.50		508.00			
Concrete	1						711.43	26.67	
Reinforcement	0.028						17.54		4.39
Finishes						504.00			
<b>Weir (under roller gate):</b>									
Formwork	1	28		18.40		378.2			
Concrete							4388.47	182.54	
Reinforcement	0.015						68.33		16.73
Finishes						1023.38			

Quantity take-off for Structure S-11

Item	Quantity	Length ft	Width ft	Thickness ft	Linear ft	Area sf	Volume cf	Volume CY	Weight tons
<b>Sill Under weir gate:</b>									
Formwork	2	20							
Concrete				13.50		658			
Reinforcement							483.35	17.16	
Finishes	0.025						11.62		2.84
<b>Baffles:</b>									
Formwork	0	9.76					543.33		
Concrete	0			1.50		0.00			
Reinforcement	0			1.50		5.96	0.00	0.00	
Finishes	0.005					0.00	0.00		0.00
<b>Elevated Slabs:</b>									
<b>Service bridge slab:</b>									
Formwork	1	62	30.5			1831			
Edge	2	62		1.53		277.33			
Concrete	1	62	30.5	1.53		1831.00	2772.33	100.85	16.68
Reinforcement	0.025						68.07		
Finishes						4009.33			
<b>Operating Platform:</b>									
Formwork	1	82	8.00			486			
Edge	2	82		1.50		183.10			
Concrete	1	82	8.00	1.50		468.10	889.00	33.30	6.51
Reinforcement	0.025						22.18		
Finishes						1364.00			
<b>Breast Wall:</b>									
Formwork	2	20	1.00			256			
Concrete				4.75			118	4.26	
Reinforcement	1						1.73		0.42
Finishes	0.015								
<b>Sheet Piling:</b>									
<b>Sheetpiles:</b>									
Perforated locking sheet piles (tensile)	2	89.07				466.78			
Perforated locking sheet piles (updownstream cutoff wall)	1	71.00				364.00			
Upstream locking sheet piles (tensile)	2	82.00				420.00			
Upstream locking sheet piles (cutoff wall)	2	62.00				310.00			
Downstream sheet piles	2	74.00				370.00			
Pile Cap:						6557.30			
Formwork	4	30.00				720.00			
Concrete	4	30.00	2.00				480.00	17.78	
Reinforcement	0.008					960.00	3.64		0.94
Finishes									
Seal Concrete									
Concrete (post strength)	1	89.07	82	5.00		36518.00		1352.69	
<b>Control Building:</b>									
Formwork	1								
Concrete									
Reinforcement									
Finishes									
<b>Excavation:</b>									
Excavation	1	89.07	82.00	29.50			218368.89	8088.48	
<b>Erosion Control System:</b>									
Erosion Control Fabric	4	20	67.05			8203.62			
Seeding Rock	1			0.8			4101.31	151.92	
Grass	1			1.5			12305.44	485.76	

14752.51



Quantity take-off for Structure S-10										
Item	Quantity	Length ft	Width ft	Thickness/Height ft	Linear ft	Area sq ft	Volume cu ft	Volume cu yd	Weight in tons	
<b>Sill (under weir gate):</b>										
Formwork	2	20								
Concrete				4.70						
Reinforcement	0.025						156.87	3.92	5.90	
Finishes										20.86
<b>Baffles:</b>										
Formwork	26	9.78								
Concrete				1.50			390.88			
Reinforcement	0.003			1.50			5.95	232.24	8.60	
Finishes								1.86		240.48
<b>Elevated Slabs:</b>										
Service bridge slab:										
Formwork	1	45	19.5							
Concrete	2	45	19.5	1.63			877.3			
Reinforcement	0.023	45	19.5	1.33			877.50	1316.25	32.91	8.08
Finishes		38	51	1.33			1925.00			248.76
<b>Operating Platforms:</b>										
Formwork	1	45	8.00							
Concrete	2	45	8.00	1.50			1080.00			
Reinforcement	0.025	45	8.00	1.50			360.00	622.50	15.31	4.00
Finishes		38	51	1.33			1980.00			
<b>Breast Wall:</b>										
Formwork	2	20	1.00	8.25			330.00	125	3.43	0.46
Concrete	1							1.88		
Reinforcement	0.015									
Finishes										
<b>Sheet Piling:</b>										
Sheetpile:										
Perforated locking sheet piles	1	63.78		6.00			382.08			
Perforated locking sheet piles	2	75.78		5.00			378.90			
Perforated locking sheet piles	1	54.00		6.00			324.00			
Up and Down stream walls	2	30.00		5.00			150.00			
Up and Down stream walls	2	30.00		27.20			2448.00			
Upstream area walls	2	30.00		24.20			2178.00			
Pile Cap:										
Formwork	4	30.00	2	2.00			240.00			
Concrete	4	30.00	2.00	2.00			480.00	3.84		60.84
Reinforcement	0.008									
Finishes										
Seal Concrete:										
Concrete (upper strength)	1	75.78	65	5.00			24625.98			
<b>Control Building:</b>										
Precast Control Bldg.	1									
<b>Excavation:</b>										
Excavation	1	75.78	65.00	28.80			14781.35			
<b>Erosion Control System:</b>										
Erosion Control Fabric	4	20	51.70				413.60			
Bedding Rock	1			0.5			3447.60			
Riprap	1			1.5			8445.71			

Quantity take-off for Structure S-11										
Item	Quantity	Length ft	Width ft	Thickness/Height ft	Linear in ft.	Areas sq ft.	Volumes in cu ft.	Volumes in cu yd.	Weight in tons	
<b>Spread Footing:</b>										
Formwork										
Concrete										
Reinforcement										
Finishes										
<b>SOG:</b>										
<b>Bridge Approach Slab:</b>										
Formwork	4	10	13	1		520.00				
Concrete	2	10	13	1		260.00	260.00	9.93		
Reinforcement	0.015						3.80			
Finishes						260.00				0.96
<b>Ladder Platform:</b>										
Formwork	2	6	8	0.5		48.00				
Concrete	1	6	8	0.5		48.00	24.00	0.89		
Reinforcement	0.004						0.10			0.02
Finishes						48.00				
<b>Open Slab:</b>										
Formwork	2	77.07	71.00	3.50		471038.54				
Concrete	0.0214			3.50		5472.18	19152.62	709.36		100.52
Reinforcement							409.48			
Finishes		77.07	71.00			54081.70				
<b>Walls:</b>										
<b>Abutment:</b>										
Formwork	4	78.57		21.40		681124.35				
Concrete	2	77.07	2.50	21.40		8248.80	8248.80	305.44		30.31
Reinforcement	0.015						123.70			
Finishes						77196.66525				
Pier:										
Formwork	6	52.25		21.40		67083.37				
Concrete	3	49.25	3.00	21.40		9485.85	9485.85	351.32		44.96
Reinforcement	0.015						142.28			
Finishes						57192.15				
<b>Columns (Supporting Platform):</b>										
<b>Abutments:</b>										
Formwork	4	10.50		11.50		483.00				
Concrete	1					483.00	483.44	16.97		2.59
Reinforcement	0.025						16.58			
Finishes						483.00				
<b>Pier:</b>										
Formwork	4	11.00		11.50		508.00				
Concrete	1					508.00	217.43	78.37		10.49
Reinforcement	0.025						17.84			
Finishes						508.00				
<b>Weir (under roller gate):</b>										
Formwork	1	28		13.40		375.2				
Concrete						375.2	438.47	162.54		16.19
Reinforcement	0.015						65.59			
Finishes						375.2				



Quantity take-off for Structure S-11

Item	Quantity	Length ft	Width ft	Thickness ft	Linear ft	Area sq ft	Volume cu ft	Volume cu yd	Weight lb
<b>Sill (under weir gate)</b>									
Formwork	2	20							
Concrete					13.90	556.00	483.33	11.58	2.84
Reinforcement	0.025								
Finishes									
<b>Baffles:</b>									
Formwork	0	9.76							
Concrete	0				1.50	0.00	0.00	0.00	0.00
Reinforcement	0					5.98	0.00	0.00	0.00
Finishes	0.008					0.00			
<b>Elevated Slabs:</b>									
Formwork	1	62	30.5						
Concrete	2	62			1.83	1931.00	2722.83	66.07	1616.68
Reinforcement	1	62	30.5		1.33	2573.50			
Finishes	0.025	38	51		1.33	4508.33			
<b>Operating Platform:</b>									
Formwork	1	62	8.00						
Concrete	2	62			1.50	165.00	899.00	33.30	7.551
Reinforcement	1	62	8.00		1.50	498.00	22.48		
Finishes	0.025	38	61		1.33	1384.00			
<b>Breast Wall:</b>									
Formwork	2	20	1.00		5.76	250.00	115	1.73	0.042
Concrete	1								
Reinforcement	0.016					270.00			
Finishes									
<b>Sheet Piling:</b>									
Sheetpiles									
Perforated locking sheet piles	2	89.07			5.00	890.73			
Perforated locking sheet piles	1	71.00			4.00	284.00			
Up and Down stream wing walls	2	62.00			5.00	620.00			
Downstream wing walls	2	30.00			32.90	2691.00			
Pile Cap:									
Formwork	4	30.00	2			1720.00	480.00	11.76	0.84
Concrete	1	30.00	2.00		2.00	960.00	3.84		
Reinforcement	0.008								
Finishes									
<b>Seal Concrete:</b>									
Concrete (poor strength)	1	89.07			5.00		38518.90		
<b>Control Building:</b>									
Precast Control Bldg.	1								
<b>Excavation:</b>									
Excavation	1	89.07	82.00	29.90			218388.38		
<b>Erosion Control System:</b>									
Erosion Control Fabric	4	20	87.03						
Bedding Rock	1			0.5		8803.82	4101.81	35.02	
Grp-rp	1			1.5			12303.44	455.78	

**QUANTITY ESTIMATE  
STRUCTURE C43S7**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			240	21.70	390	NA	
8" Bedding Stone		4000					
Filter Fabric		4110					
Walls			238	26.51	8560	NA	
Elevated Slab			155	15.51	4450	NA	
Needle Beam			4	0.50	192	NA	
Stop Log		560					
Slide Gate (10'X10')	1						
Weir Gate (10'X10')	1						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S9**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			100	9.04	165	NA	
8" Bedding Stone		1020					
Filter Fabric		1090					
Walls			88	9.80	4000	NA	
Elevated Slab			40	4.00	1230	NA	
Needle Beam			1	0.40	120	NA	
Stop Log		228					
Slide Gate (6'X6')	1						
Weir Gate (6'X6')	1						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S14**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			80	7.34	110	NA	
8" Bedding Stone		470					
Filter Fabric		530					
Walls			92	10.25	1600	NA	
Elevated Slab			20	2.00	620	NA	
Needle Beam			2	0.24	110	NA	
Stop Log		280					
Slide Gate (10X6)	1						
Weir Gate	N/A						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S15**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			130	11.76	150	NA	
8" Bedding Stone		1100					
Filter Fabric		1210					
Walls			100	11.14	4440	NA	
Elevated Slab			45	4.51	1320	NA	
Needle Beam			4	0.50	215	NA	
Stop Log		516					
Slide Gate (10'X8')							
Weir Gate (10'X8')							
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S16**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			55	5.00	68	NA	
8" Bedding Stone		348					
Filter Fabric		410					
Walls			48	5.35	2070	NA	
Elevated Slab			15	1.50	480	NA	
Needle Beam	N/A						
Stop Log	N/A						
Slide Gate	N/A						
Weir Gate	N/A						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S17**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			70	6.33	95	NA	
8" Bedding Stone		450					
Filter Fabric		520					
Walls			80	8.91	2820	NA	
Elevated Slab			20	2.00	590	NA	
Needle Beam			3	0.40	120	NA	
Stop Log		258					
Slide Gate (6'X6')	1						
Weir Gate (6'X6')	1						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

**QUANTITY ESTIMATE  
STRUCTURE C43S18**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			73	6.60	110	NA	
8" Bedding Stone		575					
Filter Fabric		650					
Walls			68	7.57	2990	NA	
Elevated Slab			34	3.40	730	NA	
Needle Beam			3	0.35	120	NA	
Stop Log		268					
Slide Gate (6'X6')							
Weir Gate (6'X6')							
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil



**QUANTITY ESTIMATE  
STRUCTURE C43S19**

ITEM	QUANTITY	SF	CONC(C.Y.)	REINF (TON)	FORMWORK (S.F.)	FINISH (S.F.)	REMARKS
Base Slab			60	5.43	110	NA	
8" Bedding Stone		470					
Filter Fabric		524					
Walls			55	6.12	2320	NA	
Elevated Slab			20	2.00	612	NA	
Needle Beam			2	0.24	110	NA	
Stop Log		204					
Slide Gate (10'X6')							
Weir Gate	N/A						
Rip-Rap							By SCI Civil
Excavation							By SCI Civil
Fill							By SCI Civil

Computed by Day/Bar/2002 Date 5-24-05

Checked by Date

Approved by Date

CONTROL BUILDING SLABS

Sheet No of

SLAB ON GRADE S1

12x22' CONTROL BUILDING (GATE S1)

CONCRETE

$$12 \times 22 \times .5 \times \frac{1}{2} \times 105 = 5 \text{ CY}$$

FORM WORK EDGE

$$2 \times (12 + 22) = 68 \text{ LF}$$

FINISH WORK

$$12 \times 22 = 264 \text{ SF}$$

REINFORCING

$$80 \times 5 = 400 \# \times \frac{1}{2000} = .2 \text{ TONS}$$

8'x8' CONTROL BUILDING (PUMP STATION PS1)

CONCRETE

$$8 \times 8 \times .5 \times \frac{1}{2} \times 105 = 1 \text{ CY}$$

FORM WORK EDGE

$$2 \times (8 + 8) = 32 \text{ FT}$$

FINISH WORK

$$8 \times 8 = 64 \text{ SF}$$

REINFORCING

$$80 \times 1 = 80 \times \frac{1}{2000} = .04 \text{ TONS}$$

**Jensen, Glenn**

---

**From:** Lange, Alan  
**Sent:** Thursday, May 25, 2006 9:34 AM  
**To:** Jensen, Glenn  
**Subject:** FW: C43 Pump Station

Glenn,  
Here's the break down on the fans

Alan

---

**From:** Brad Forret [mailto:brad@products-inc.com]  
**Sent:** Thursday, May 25, 2006 8:28 AM  
**To:** Lange, Alan  
**Subject:** RE: C43 Pump Station

Here you go

8 - Sidewall exhaust fans	\$45,340
8 - Sidewall supply fans	\$27,174
1 - Inline SQ fan	\$370
1 - Ceiling fan SP	\$75
2 - Sidewall exhaust fans	\$2,378
Total	\$75,337

Thanks,

Brad Forret  
Products, Inc  
1429 2nd Avenue  
Des Moines, IA 50314  
515-288-5738 Phone  
515-288-2574 Fax  
[brad@products-inc.com](mailto:brad@products-inc.com)

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**From:** Lange, Alan [mailto:LangeAlan@stanleygroup.com]  
**Sent:** Tuesday, May 23, 2006 2:19 PM  
**To:** Brad Forret  
**Subject:** RE: C43 Pump Station

Thanks Brad

Could you give me a break down on each fan  
Also I only need one SQ-85-D

Alan  
Senior Designer  
563-264-6443  
[LangeAlan@stanleygroup.com](mailto:LangeAlan@stanleygroup.com)

Stanley Bldg  
225 Iowa Ave  
Muscatine, IA 52761

5/25/2006

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**From:** Brad Forret [mailto:[brad@products-inc.com](mailto:brad@products-inc.com)]  
**Sent:** Tuesday, May 23, 2006 10:02 AM  
**To:** Lange, Alan  
**Subject:** C43 Pump Station

Alan,

Here is the information you requested

Budget pricing for 21 fans per attached submittal is \$75,701 00

Current lead time for all the fans are approximately 3 weeks.

Please let me know if you have any questions

Thanks,

Brad Forret  
Products, Inc  
1429 2nd Avenue  
Des Moines, IA 50314  
515-288-5738 Phone  
515-288-2574 Fax  
[brad@products-inc.com](mailto:brad@products-inc.com)

5/25/2006

**MISCELLANEOUS SITE WORK  
QUANTITIES**

STRUCTURE	FLOATING WEED		FLOATING WEED		FLOATING SAFETY		FLOATING SAFETY		VEHICLE BARRIER
	UP STREAM	(LF)	DN STREAM	(LF)	UP STREAM	(LF)	DN STREAM	(LF)	
S-1	90	90	90	90	114	114	114	114	(EA)
S-8	90	90	90	90	114	114	114	114	
CS-1	23	23	23	23					
CS-2	20	20	20	20	27	27	27	27	
S-3	105	105	112	112	114	114	121	121	
S-10	11	11	87	87	149	149	105	105	
S-11	120	120			136	136	136	136	
PS-1	271	271			104	104	234	234	
PS-4	83	83			96	96			
S-7	105	105	105	105	105	105	105	105	
S-9	61	61	61	61	102	102	98	98	
S-14	168	168	257	257	239	239	250	250	
S-15	109	109	102	102	136	136	171	171	
S-16	209	209	209	209	205	205	205	205	
S-17	55	55	55	55	64	64	64	64	
S-18	55	55			64	64			
S-19	171	171	100	100	125	125	114	114	
PROJECT									3
SUBTOTALS	1745		1311		1894		1858		3
TOTALS		3057				3752			3



Quantity take-off for Structure S-3									
Item	Quantity	Length ft	Width ft	Thickness/Height ft	Layer in.	Area sq.ft	Volume cu.ft	Volume cu.yd	Weight # tons
<b>Sills:</b>									
Bed Sill:									
Formwork	1	28							
Concrete	1	28				28			
Reinforcement	0.005	28				1.84	47.71	1.77	0.09
Fishes						102.83	0.38		
<b>For Dewatering Needles:</b>									
Formwork	2	28		0.6					
Concrete	2	28		0.6					
Reinforcement	0.009	28				114.77	0.35	1.20	0.06
Fishes									
<b>Baffles</b>									
Formwork	15	3.50		1.37		85.45			
Concrete	15			1.50		1.94	43.75	3.82	0
Reinforcement	0.008					188.78	0.35		
Fishes									
<b>Elevated Slab:</b>									
Top Slab at Culvert:									
Formwork	2	20.00	25	1.75		500.00	875.00	32.41	
Concrete	1	20.00	25	1.75		87.50	21.88		
Reinforcement	0.020								
Fishes									
Roachway									
Formwork	2	17	20.00			46	105.31	7.23	0.75
Concrete (wearing surface & subbase)	1	17	20.00			477.88	3.33		
Reinforcement	0.015								
Fishes									
<b>Breast Wall:</b>									
Formwork	2	24	1.50	1.60		216	108	3.00	0.30
Concrete	2	24	1.50	1.60		216	1.68		
Reinforcement	0.015								
Fishes									
<b>Sheet Piling</b>									
Sheetpiles									
Precast bedrock sheet piles	1	66.48							
Precast bedrock sheet piles	2	77.48		0.00		99.13			
Precast bedrock sheet piles	1	28.00		0.00		252.00			
Precast bedrock sheet piles	1	28.00		0.00		252.00			
Up and Down stream wing walls	2	20.00		1.00		360.00			
Downstream wing walls	2	20.00		15.00		90.00			
Pile Caps									
Formwork	4	20.00	2	2.00		400.00			
Concrete	4	20.00	2	2.00		400.00			
Reinforcement	0.008								
Fishes									
Box Culverts									
Box Culverts (2x2x5 ft)	1	77.48	38.00	5.00			15104.35	599.02	
<b>Control Building:</b>									
Formwork	1								
Concrete	1								
Reinforcement									
Fishes									
<b>Excavation:</b>									
Excavation	1	77.48	38.00	26.80			6052.18	338.54	
<b>Erosion Control System:</b>									
Erosion Control System	4	20							
Second Box	1	37.70		0.5		626.69	267.55	97.55	12
Spill	1	1.5		1.5			788.54	291.35	37

C43PS4

5/6/2006

OPINION OF COST 30%

Item No.	Description	Unit	Quantity	Unit Cost	Total
	<b>MOBILIZATION/DEMOB</b>	~10% LS	job	\$ 400,000	\$ 400,000
1	<b>DEWATERING INTAKE STRUCTURE</b>				
	Cofferdam 80 ft. x 30 ft.				
	el +10 to -20, 30 ft / PZ27 sht - 6600 SF	ton	90	\$ 1,500	\$ 135,000
	Bracing 17704	LS	job	\$ 35,000	\$ 35,000
	Pumping 250 LF	mn	2	\$ 8,000	\$ 16,000
	Excavation	cy	4000	\$ 8	\$ 32,000
	<b>Subtotal</b>				\$ 218,000
2	<b>INTAKE STRUCTURE</b>				
	<b>A. CONCRETE</b>				
	Footing (Base Slab)	cy	207		
	Abutments, Piers, Backwall	cy	235		
	Intake Noses	cy	10		
	Keyway	cy	12		
	<b>Subtotal</b>	cy	464		
	<b>B. FORMWORK</b>				
	Footing (Base Slab)	sf	640		
	Abutments, Piers, Backwall	sf	5280		
	Intake Noses	sf	207		
	Keyway	sf	304		
	<b>Subtotal</b>	sf	6431		
	<b>C. REINFORCING</b>				
	Footing (Base Slab)	ton	16.5		
	Abutments, Piers, Backwall	ton	18.8		
	Intake Noses	ton	0.8		
	Keyway	ton	1		
	<b>Subtotal</b>	ton	37.1		
	<b>D. FINISHES</b>				
	Footing (Base Slab)	sf	1872		
	Abutment, Piers, Backwall	sf	304		
	<b>Subtotal</b>		2176		
3	<b>PUMP HOUSE / DISCHARGE STRUCTURE</b>				
	<b>A. CONCRETE</b>				
	Wall Footing	cy	118		
	Foundation Wall to el 16 0	cy	68		
	Slab S-3	cy	205		
	Slab S-1	cy	20		
	Slab S-4	cy	25		
	Slab S-5	cy	145		



Beams B-2	ton	4.8
Beams B-3	ton	1.9
Beams B-4	ton	0.6 <i>0.7</i>
Chamber Walls	ton	12.5
Concrete Stairs	ton	2.8 *
Approach Slab	ton	0.2
Intake Slab	ton	4.4
Discharge Chamber Keyway	ton	0.8
Equipment Pads	ton	0.3
<b>Subtotal</b>	<b>ton</b>	<b>86.1</b>

#### D. FINISHES

Wall Footing	sf	708 *
Foundation Wall	sf	0
Slab S-3	sf	1932
Slab S-1	sf	570
Slab S-4	sf	722
Slab S-5	sf	1292
Slab S-2	sf	280 <i>796</i>
Columns C-1	sf	0
Columns C-2	sf	0
Columns C-3	sf	0
Beams B-1	sf	92
Beams B-2	sf	352
Beams B-3	sf	0
Beams B-4	sf	0 <i>REMOVED</i>
Chamber Walls	sf	60
Concrete Stairs	sf	72 *
Approach Slab	sf	140
Intake Slab	sf	1380
Discharge Chamber Keyway	sf	0
Equipment Pads	sf	108
<b>Subtotal</b>		<b>7708</b>

4

#### RETAINING WALLS

##### A. CONCRETE

Wall w/ top at el. 31.0 - footing	cy	77
Wall w/ top at el. 19.0 - footing	cy	42
Wall w/ top at el. 31.0 - stem	cy	108
Wall w/ top at el. 19.0 - stem	cy	33
<b>Subtotal</b>	<b>cy</b>	<b>260</b>

##### B. FORMWORK

Wall -1	sf	1300
Wall -2	sf	1190
Wall -3	sf	1820

Slab S-2	cy	<del>10</del> 40.5
Column C-1 (12)	cy	37
Column C-2 (2)	cy	6
Column C-3 (6)	cy	<del>7</del> 30
Beams B-1	cy	18
Beams B-2	cy	60
Beams B-3	cy	24
Beams B-4	cy	7
Chamber Walls	cy	156
→ Concrete stairs	cy	35 *
Approach Slab at el 19	cy	9
Intake Slab at el 10	cy	55
Discharge Chamber Keyway	cy	11
Equipment pads	cy	4
→ Intake Can Tremie	cy	56 *
<b>Subtotal</b>	<b>cy</b>	<b>1076</b>

#### B. FORMWORK

Wall Footing	sf	1062 *
Foundation Wall to el 16 0	sf	2124
Slab S-3 (SOG)	sf	894
Slab S-1 (Elevated)	sf	543
Slab S-4 (Elevated)	sf	684
Slab S-5 (SOG)	sf	318
Slab S-2 (Elevated)	sf	276 27.5
Columns C-1	sf	1920
Columns C-2	sf	320
Columns C-3	sf	448
Beams B-1	sf	368
Beams B-2	sf	1924
Beams B-3	sf	736
Beams B-4	sf	266
Chamber Walls	sf	4248
→ Concrete Stairs	sf	144 *
Approach Slab at el 19 0 (SOG)	sf	34
Intake Slab at el 10 (SOG)	sf	0
Discharge Chamber Keyway	sf	304
Equipment Pads	sf	21
<b>Subtotal</b>	<b>sf</b>	<b>16634</b>

#### C. REINFORCING

Wall Footing	ton	9.5 *
Foundation Wall	ton	5.5
Slab S-3	ton	16.4
Slab S-1	ton	1.6
Slab S-4	ton	3
Slab S-5	ton	11.6
Slab S-2	ton	0.8
Columns C-1	ton	5.9
Columns C-2	ton	1
Columns C-3	ton	1.1
Beams B-1	ton	1.4

Wall -4	sf	1060
<b>Subtotal</b>	sf	<b>5370</b>

#### C. REINFORCING

Wall -1	ton	6.2
Wall -2	ton	3.4
Wall -3	ton	8.6
Wall -4	ton	2.6
<b>Subtotal</b>	ton	<b>20.8</b>

#### D. FINISHES

Wall- 1	sf	75
Wall- 2	sf	0
Wall- 3	sf	105
Wall- 4	sf	75
<b>Subtotal</b>	sf	<b>255</b>

5

#### MASONRY

Infill Panels 12 in. CMU reinf.	sf	1920
Parapet 12 in. CMU reinf.	sf	561
Interior 8 in. CMU	sf	528
<b>Subtotal</b>		

6

#### PRECAST ROOF PANELS

10 in. Hollowcore	sf	1736	\$	25	\$	43,400
<b>Subtotal</b>					\$	<b>43,400</b>

7

#### COMPONENTS AND CLADDING

SBS roofing w/ 2 in. insulation	sf	2912	\$	7	\$	20,384
Wall coatings	sf	6400	\$	4	\$	25,600
Interior roof coatings	sf	2912	\$	5	\$	14,560
Scuppers and downspouts	ea	8	\$	600	\$	4,800
Roof Hatches	ea	3	\$	4,500	\$	13,500
Louvers 6 ft x 10 ft	ea	2	\$	5,500	\$	11,000
Louvers 4 ft x 4 ft	ea	1	\$	3,500	\$	3,500
Overhead door 10 ft x 10 ft	ea	1	\$	7,500	\$	7,500
Doors 3 ft x 7 ft and hardware	ea	2	\$	2,300	\$	4,600
Doors 6 ft x 7 ft and hardware	ea	2	\$	2,700	\$	5,400
Door 3 ft 7 ft interior	ea	2	\$	2,300	\$	4,600
Exhaust fan hoods	ea	4	\$	1,700	\$	6,800
Metal stairs	ea	1	\$	12,000	\$	12,000
<b>Subtotal</b>					\$	<b>134,244</b>

8

#### MISCELLANEOUS METALS

Intake embeds	job	1	\$	2,500	\$	2,500
Building embeds	job	1	\$	2,000	\$	2,000
Intake Handrail	lf	40	\$	100	\$	4,000
Discharge Chamber Handrail	lf	38	\$	100	\$	3,800
Retaining Wall Handrail	lf	178	\$	100	\$	17,800
Exterior Stairs Handrail	lf	36	\$	100	\$	3,600
<b>Subtotal</b>					\$	<b>33,700</b>
<b>Subtotal Structure</b>					\$	<b>211,344</b>

**ELECTRICAL (installed costs UON)**

<b>1 Building Service</b>					
Entrance, disconnects, etc	LS	job	\$	30,000	\$ 30,000
Building distribution	LS	job	\$	25,000	\$ 25,000
<b>2 Back-up Power, Building Services Only</b>					
Generator	ea	1	\$	35,000	\$ 35,000
Transfer switch	ea	1	\$	17,000	\$ 17,000
Wiring, boxes	LS	job	\$	7,500	\$ 7,500
<b>3 Grounding System</b>	LS	job	\$	5,500	\$ 5,500
<b>4 Lighting</b>					
Exterior	LS	job	\$	10,000	\$ 10,000
Interior	LS	job	\$	20,000	\$ 20,000
<b>5 Lightning Protection System</b>	LS	job	\$	15,700	\$ 15,700
<b>Subtotal</b>					<b>\$ 165,700</b>

**INSTRUMENTATION AND CONTROLS**

<b>1 Motor Control</b>					
PLC	ea	4	\$	18,000	\$ 72,000
Trash Rake Control	ea	3	\$	2,500	\$ 7,500
Conveyor Control	ea	1	\$	1,500	\$ 1,500
Monitors and Instrumentation	LS	job	\$	20,000	\$ 20,000
Cabinet	ea	1	\$	7,500	\$ 7,500
Wiring, relays etc	LS	job	\$	25,000	\$ 25,000
Stilling well, LW	ea	2	\$	5,000	\$ 10,000
Pump and Motor Monitors	ea	6	\$	2,500	\$ 15,000
<b>2 RTU</b>					
Interconnections and program	LS	job	\$	15,000	\$ 15,000
<b>3 Stage Monitoring Equip/Wiring</b>	LS	job	\$	15,000	\$ 15,000
<b>4 Gas Detection System</b>	LS	job	\$	6,500	\$ 6,500
<b>Subtotal</b>					<b>\$ 215,000</b>

**\*SITE WORK**

<b>1 Intake</b>					
Can Intake Tremie	cy	23	\$	1,200	\$ 27,600
Stone Protection	cy	475	\$	85	\$ 40,375
Excavation and Haul	cy	10600	\$	7	\$ 74,200
<b>2 Discharge Channel - estimated 2000 ft</b>					
Excavation and Backfill	cy	19700	\$	7	\$ 137,900
Riprap at structure	cy	440	\$	85	\$ 37,400
Riprap at canal discharge	cy	500	\$	85	\$ 42,500
<b>3 Structure Site (assume site degraded to el 23 for reservoir fill)</b>					
Excavation and Haul	cy	9500	\$	7	\$ 66,500
Structural Backfill	cy	2500	\$	12	\$ 30,000
Limerock Base	sy	15300	\$	10	\$ 153,000
<b>4 Staff Gages w/ piling</b>	ea	2	\$	2,700	\$ 5,400
<b>5 In-Bank Stilling Well</b>	ea	2	\$	18,500	\$ 37,000
<b>6 Bollards</b>	ea	5	\$	200	\$ 1,000
<b>7 Antenna Pole</b>	ea	1	\$	78,000	\$ 78,000
<b>8 Grassing</b>	ac	4 2	\$	5,500	\$ 23,100
<b>Subtotal</b>					<b>\$ 753,975</b>

**HVAC****(Installed costs UON)**

1 HVAC Control Room A/C	LS	job	\$	7,500	\$	7,500
2 Exhaust Fans and Shutters	ea	4	\$	1,800	\$	7,200
3 Controls	LS	job	\$	2,500	\$	2,500
Subtotal					\$	17,200

**\* PUMP EQUIPMENT** (Installed costs UON)

<b>1 Pumps</b>					
Vertical Turbine SST, 50 cfs	ea	3	\$ 135,000	\$	405,000
Service Water System	ea	1	\$ 16,000	\$	16,000
Motors 300 Hp	ea	3	\$ 40,000	\$	120,000
Intake Can	ea	3	\$ 75,000	\$	225,000
Intake Pipe 48 in dia	lf	160	\$ 250	\$	40,000
Intake Pipe Wall Thimbles	ea	3	\$ 4,100	\$	12,300
Model study	ea	1	\$ 75,000	\$	75,000
<b>2 LP Gas Fuel System</b>					
Storage Tank	ea	1	\$ 8,500	\$	8,500
Piping, fittings, valves	job	1	\$ 13,500	\$	13,500
<b>3 Trash Collection System</b>					
Trash Rake	ea	3	\$ 95,000	\$	285,000
Trash Conveyor	ea	1	\$ 65,000	\$	65,000
Trash Rack	ea	3	\$ 66,000	\$	198,000
<b>4 Fire Extinguishers</b>	ea	4	\$ 400	\$	1,600
<b>5 Discharge Piping, Fittings</b>					
Pipe, 30, steel, flanged	lf	45	\$ 420	\$	18,900
Wall thimbles	ea	3	\$ 3,500	\$	10,500
<b>Subtotal</b>				<b>\$</b>	<b>1,494,300</b>

**SUBTOTAL PUMP STATION**

**BONDS & INSURANCE 1.5%**

**PROFIT 10%**

**OVERHEAD 6%**

**SUBTOTAL**

**CONTINGENCY 20%**

**PROJECT TOTAL**

SPC  
10  
7  
3  
6  
21  
3  
8

MAIN SWITCHBOARD NEMA 12 ENCLOSURE

MATERIAL

LABOR

MAIN BREAKER 600A / SBC	1	@ \$3,600 =	\$3,600	@ 4.8 =	4.8 HRS
40A BRKR	3	@ \$230 =	\$690	@ 0.65 =	1.95
50A BRKR	1	@ \$230 =	\$230	@ 0.65 =	0.65
80A BRKR	2	@ \$280 =	\$560	@ 1.25 =	2.5
100A BRKR	7	@ \$280 =	\$1,960	@ 1.25 =	8.75
200A BRKR	1	@ \$760 =	\$760	@ 2.6 =	2.6
300A BRKR	2	@ \$1,200 =	\$2,400	@ 3.5 =	7
600A SERVICE ENTRANCE 1EA	1	@ \$3,100 =	\$3,100	@ 4.8 =	4.8
AUTOMATIC TRANSFER SWITCH 600A 1EA	1		\$19,000	@ 16 =	16
POWER QUALITY METER 1EA	1		\$1,500		2
TRANSIENT VOLTAGE SURGE SUPPRESSOR 1EA	1		\$790		--
			\$25,590		48.8 @ \$50 =

16315-0011 FELER 19

PROBABLE COST USE \$26,000

\$2,500

SERVICE DISCONNECT SWITCH 600A

1EA

MANUAL TRANSFER SWITCH 600A

1EA

FELER 21

16312-0151 16 HRS \$16,300 MATL

500KW DIESEL GENERATOR

2EA

GENERATOR PAD

03301-0001 PLASTIC  
100 HRS \$5,000 MATL

2EA

@ \$3,000

MATL

2,000

LABOR

TRANSFORMER PAD

03301-0002 PLASTIC  
20 HRS \$1,000 MATL

1EA

@ \$500

MATL

500

MATL

CURRENT TRANSFORMER 16315-0012 FELER 29

3EA

@ \$110 MATL

@ \$60 LABOR

4" PVC CONDUIT

350 LF

SERVICE CABLE

500MCM 2X50 =

120 LF

TERMINATIONS

300MCM 2X3X2=12EA

1/0

50 LF

1X3X2=6EA

480-120/240V XMR 103W 45KVA 2EA

Computed by: Marcin Krok  
5/23/2006

Project No. 17300 09 02  
South Florida Water Management District  
C-43 West Storage Reservoir Electrical

Item	QTY
<b>Security</b>	
SSW 21 Main Control Panel 16839-0599 BELER 19 31 MFS #140 MFL	1 EA
26C-#14 Cable -0355 BELER 19 27 2,340	128 LF 0.13 MLF
24C-#14 Cable -0357 27 2,340	44 LF 0.05 MLF
20C-#14 Cable -0356 25 2,028	25 LF 0.03 MLF
18C-#14 Cable -0355 24 1,716	196 LF 0.12 MLF
16C-#14 Cable -0354 23 1,352	146 LF 0.12 MLF
14C-#14 Cable -0353 22 1,170	260 LF 0.12 MLF
4C-#14 Cable -0352 10 933	296 LF 0.13 MLF
2C-#14 Cable 16121-0351 BELER 19 7 116	188 LF 0.12 MLF
3/4" RGS Conduit	250 MFL 1283 LF

Limit Switch	10 EA
Key Switch	4 EA
Key Pad Security Panel	1 EA
Key Pad	10 EA

#### Fire Alarm

Fire Alarm Control Panel	1 EA
Main Control Panel	1 EA
Emergency Lights	3 EA
Manual Pull Station	9 EA
Duct Detector	12 EA
Smoke Detector	3 EA
Horn Strobe	20 EA
Heat Detector	39 EA
2C-#14 Cable	2640 LF 2.64 MLF
3/4" RGS Conduit	2640 LF

#### CCTV System

Video Server Cabinet	1 EA
Digital Video Recorder	1 EA
Multiplexer/Video Switcher	1 EA
Camera Pan/Tilt/Zoom Controller	1 EA 16862-0011 BELER 19 6 MFL 5,880 MFL
Monitor	1 EA
56K Telephone Modem	1 EA
Co-Axial Cable Signal Splitter	6 EA
Internet Video Server/Multiplexer	1 EA
Interior Camera	2 EA
Exterior Camera	4 EA
200 VA 120V-24V Transformer	6 EA
Co-Axial Cable	588 LF 0.59 MLF
3/4" Conduit	588 LF
3/4" #12 Cable	3x588=1,764 588 LF 1.77 MFL COMMAN 1.176 LF
3/4" RGS Conduit	588 LF



Computed by: Marcin Krok  
5/24/2006

E017

Project No 17300 09 02

South Florida Water Management District  
Pump Station Electrical

**PUMP ENGINE MCC**

(PRICE FOR 1 ENGINE, 4 READ.)

SPACES	Item	QTY	Unit	Unit Price	Material Cost	Labor MH	Total Labor
1	Motor Control Center						
1	Motor Starter SIZE 1	5	EA	1,100 =	5,500	2 =	10
	Transient Voltage SUPPRESSOR	1	EA	790 =	790	---	---
	<b>Circuit Breakers</b>						
5	600A	1	EA	3,000 =	3,000	3.6 =	3.6
2	100A	1	EA	700 =	700	1.3 =	1.3
3	40A	1	EA	700 =	700	1.3 =	1.3
4	20A	4	EA	700 =	2,800	1.3 =	5.2
	Temperature Switch	1	EA	80 =	80	---	---
1	Potential Transformer	1	EA	730 =	730	---	---
6	Current Transformer	3	EA	440 =	1,320	---	---
30 = 15 SECT	Setting Sections			\$		11	MH
12	<b>Metering</b>						
	Analog Meter	1	EA	4700 =	4700		
	PLC Display	1	EA	2,000 =	2,000		
	Status Lights	1	EA	80 =	80		
	Control Switches	1	EA	90 =	90		
	Power Quality	1	EA	90 =	90		
	10315-0011 BELTRIX				\$19,580		
	PROBABLE COST FOR 1 USE				\$20,000		
	480V-120V 5KVA Transformer	1	EA				
	3/4" Power Cable	3-6400 =	1,920	400 LF	12 MILE		
	2" PVC Conduit		400 LF				

37.4 \* \$50 =  
\$11870  
\$21000

Computed by: Marcin Krok  
5/24/2006

E014

POWER WIRING C43P31

Project No 17300 09 02  
South Florida Water Management District  
Pump Station Electrical

Item	QTY	Unit	Unit Price	Material Cost	Labor MH	Total Labor
<b>Motor Control Center</b>						
Motor Starter SIZE 1	0	EA				
Motor Starter SIZE 2	0	EA				
Motor Starter SIZE 3	0	EA				
Soft Start SIZE 2	0	EA				
Soft Start SIZE 3	0	EA				
Transient Voltage	0	EA				
<b>Circuit Breakers</b>						
600A	0	EA				
400A	0	EA				
100A	0	EA				
50A	0	EA				
40A	0	EA				
20A	0	EA				
Level Switch	0	EA				
Disconnect Switch 30A	0	EA				
Temperature Switch	0	EA				
Thermostat	0	EA				
Potential-Transformer	0	EA				
Current Transformer	0	EA				
Setting Sections			\$			MH
<b>Metering</b>						
Analog Meter	0	EA				
PLC Display	0	EA				
Status Lights	0	EA				
Control Switches	0	EA				
Power Quality	0	EA				
Volt	0	EA				
480V-120V 5KVA Transformer	0	EA				
34/0 Power Cable	34650 = 1950	650 LF		1950 LF		
2" PVC Conduit		650 LF				

Computed by: Marcin Krok  
5/24/2006

E015

Project No 17300 09 02

South Florida Water Management District  
Pump Station Electrical

**C43PS1 MCL AUX EAST**

Item	QTY	Unit	Unit Price	Material Cost	Labor MH	Total Labor
Motor Control Center						
54 Motor Starter SIZE 1	27	EA	1,100 =	\$29,700	2 =	54
10 Motor Starter SIZE 2	8	EA	1,300 =	10,400	2.1 =	16.8
Motor Starter SIZE 3	0	EA				
3 Soft Start SIZE 2	1	EA	2,200 =	2,200	2 =	2
6 Soft Start SIZE 3	2	EA	3,300 =	6,600	2.1 =	4.2
Transient Voltage SUPPRESSOR	1	EA	790 =	790		

**Circuit Breakers**

5 600A	1	EA	3,000 =	3,000	3.6 =	3.6
4 400A	1	EA	2,300 =	2,300	2.8 =	2.8
4 100A	2	EA	700 =	1,400	1.3 =	2.6
4 50A	2	EA	700 =	1,400	1.3 =	2.6
40A	0	EA				
20A	0	EA				

Level Switch	1	EA	80 =	80		
Disconnect Switch 30A	8	EA				
Temperature Switch	0	EA				
Thermostat	5	EA	150 =	750		
Potential Transformer	1	EA	730 =	730		
Current Transformer	3	EA	440 =	1,320		

Setting Sections \$ 32 MH

**Metering**

Analog Meter	0	EA				
PLC Display	0	EA				
Status Lights	0	EA				
Control Switches	0	EA				
Power Quality	1	EA	90 =	90	1 =	1
Volt METER	1	EA	760 =	760	1 =	1

480V-120V 5KVA Transformer

0 EA \$61,520

122.6 WASE \$50/HR

3-4/0 Power Cable 34,900 = 5,700  
2" PVC Conduit

1900 LF 5.7 MCF  
1900 LF

16315-0012 05/21/19

Computed by: Marcin Krok  
5/24/2006

E016

C43PS1 MCL AUX WEST

Project No 17300 09 02

South Florida Water Management District  
Pump Station Electrical

Item	QTY	Unit	Unit Price	Material Cost	Labor MH	Total Labor
<i>SPR 15</i> Motor Control Center						
26 Motor Starter SIZE 1	13	EA	1,130 =	14,300	2 =	26.445
16 Motor Starter SIZE 2	8	EA	1,300 =	10,400	2.1 =	16.8
Motor Starter SIZE 3	0	EA				
3 Soft Start SIZE 2	1	EA	2,200 =	2,200	2 =	2
6 Soft Start SIZE 3	2	EA	3,300 =	6,600	2.1 =	4.2
Transient Voltage <i>SUPPRESSOR</i>	1	EA	790 =	790		---

<b>Circuit Breakers</b>						
5 600A	1	EA	3,000 =	3,000	3.6 =	3.6
4 400A	1	EA	2,300 =	2,300	2.8 =	2.8
4 100A	2	EA	700 =	1,400	1.3 =	2.6
4 50A	2	EA	700 =	1,400	1.3 =	2.6
40A	0	EA				
20A	0	EA				

Level Switch 0 EA

Disconnect Switch 30A 10 EA

Temperature Switch 0 EA

Thermostat 0 EA

Potential Transformer 1 EA 730 = 730

Current Transformer 3 EA 440 = 1,320

*COMBINING W/ MCL AUX EAST 10+8 = 18 EA*

Setting Sections

\$

29 MH

**Metering**

Analog Meter 0 EA

PLC Display 0 EA

Status Lights 0 EA

Control Switches 0 EA

Power Quality 1 EA 90 = 90

Volt *WATER* 1 EA 760 = 760

1 = 1  
1 = 1

480V-120V 5KVA Transformer

0 EA

*\*45,290*

*91.6 MINS @ 30/HR*

*PROPOSED COST USE \*45,000*

*\*45,580*

3-4/0 Power Cable *3x1,050 = 3,150* 1050 LF *3.15 MLF*

2" PVC Conduit

1050 LF

**Jensen, Glenn**

---

**From:** Grounds, Dave  
**Sent:** Thursday, May 18, 2006 4:27 PM  
**To:** Jensen, Glenn; Ahlschwede, Jon  
**Subject:** RE: C-43

Lee County, C-43 is in Hendry County

---

**From:** Jensen, Glenn  
**Sent:** Thursday, May 18, 2006 5:25 PM  
**To:** Ahlschwede, Jon  
**Cc:** Grounds, Dave  
**Subject:** C-43

Jon,

We are going to use the labor rates from Ft. Meyers correct? Can you tell me the name of the county Ft Meyers is in?

Thanks

Glenn

Wed 31 May 2006  
Eff. Date 05/31/06

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal

TIME 09:25:13

TITLE PAGE 1

C43 West Storage Reservoir  
South Florida Water Management  
District

DRAFT

Designed By: Stanley Consultants  
Estimated By: Stanley Consultants

Prepared By: L.G. Jensen  
D.R. Drake

Preparation Date: 05/31/06  
Effective Date of Pricing: 05/31/06  
Est Construction Time: 1095 Days

Sales Tax: 7.00%

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Release 5.31

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
Project Distributed Costs

TIME 09:25:13  
DETAIL PAGE 1

0.01. Prime Contractor		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
0.01. Prime Contractor												
0.01. 0. Overhead Items - AA												
CIV	<01500 1101 >	Field Office Trailer	36.00	MO	N/A	0.00	0.00	0.00	301.21	0.00	301.21	301.21
									10,843	0	10,843	301.21
USR	<01500 1102 >	Fencing @ Storage Area	700.00	LF	N/A	0.00	0.50	0.00	3.21	0.00	3.71	3.71
							350	0	2,247	0	2,597	3.71
USR	<01500 1103 >	Office Supplies	36.00	MO	N/A	0.00	0.00	0.00	133.75	0.00	133.75	133.75
							0	0	4,815	0	4,815	133.75
USR	<01700 0001 >	Contract Closeout	1.00	MO	N/A	0.00	12000.00	1000.00	21400.00	0.00	34400.00	34400.00
							0	12,000	21,400	0	34,400	34400.00
MIL	<01710 1111 >	Debris Removal & Disposal	85.00	CSF	ULABB	11.25	2.73	0.00	1.87	0.00	4.60	4.60
							19	232	0	159	391	4.60
USR	<01710 1112 >	Continuous Cleanup	36.00	MO	N/A	0.00	300.00	50.00	0.00	0.00	350.00	350.00
							0	10,800	1,800	0	12,600	350.00
USR	<01710 2112 >	Final Job Clean-Up	1.00	LS	N/A	0.00	1200.00	100.00	214.00	0.00	1514.00	1514.00
							0	1,200	214	0	1,514	1514.00
USR	<01913 1001 >	Temporary Power	36.00	MO	N/A	0.00	0.00	0.00	160.50	0.00	160.50	160.50
							0	0	5,778	0	5,778	160.50
USR	<01913 2001 >	Temporary Water	36.00	MO	N/A	0.00	0.00	0.00	21.40	0.00	21.40	21.40
							0	0	770	0	770	21.40
USR	<01913 3001 >	Temporary Sanitary (2ea @ \$40ea) Portable Toilets	36.00	MO	N/A	0.00	0.00	0.00	85.60	0.00	85.60	85.60
							0	0	3,082	0	3,082	85.60
USR	<01913 4001 >	Temporary Telephone	36.00	MO	N/A	0.00	0.00	0.00	107.00	0.00	107.00	107.00
							0	0	3,852	0	3,852	107.00
USR	<01500 1102 >	Project Sign(s) (@ \$300 ea)	2.00	EA	N/A	0.00	40.00	0.00	321.00	0.00	361.00	361.00
							0	80	642	0	722	361.00
USR	<01660 1001 >	Testing Adjusting & Balancing	1.00	LS	N/A	0.00	2000.00	0.00	535.00	0.00	2535.00	2535.00
							0	2,000	535	0	2,535	2535.00
USR	<01921 6301 >	Maintain Haul Routes	1.00	LS	N/A	0.00	10000.00	3000.00	2140.00	0.00	15140.00	15140.00
							0	10,000	2,140	0	15,140	15140.00
USR	<01921 5200 >	Travel Expense ( 1 Trip Per MON)	36.00	EA	N/A	0.00	0.00	0.00	321.00	0.00	321.00	321.00
							0	0	11,556	0	11,556	321.00
USR	<01922 3001 >	Insurance	1.00	LS	N/A	0.00	0.00	0.00	235400.00	0.00	235400.00	235400.00
							0	0	235,400	0	235,400	235400.00

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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Project Distributed Costs

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0.01. Prime Contractor		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR	<01932 1001 > Mob and De- Mob	1.00	LS	N/A	0.00	0.00	2000000	5000000	0.00	0.00	7000000.00	7000000
USR	<01941 3121 > Storage/Tool Trailer (\$100/MON)	36.00	MO	N/A	0.00	0.00	0	0	107.00	0.00	107.00	3,852
MIL	< > TRK, HWY, 4X2, F150, 1/2T, 4900 GVW 4X2 1/2-TON PICK-UP, 4900 GVW	36.00	MO	T50F0001	1.00	0.00	0	1690.40	0.00	0.00	1690.40	60,854
MIL	< > TRK, HWY, 4X2, F250, 3/4T, 8600 GVW 4X2 3/4-TON PICK-UP, 8600 GVW	36.00	MO	T50F0003	1.00	0.00	0	1759.83	0.00	0.00	1759.83	63,354
FOP	< > General Superintendents (P.M.)	36.00	MO	FA-AGENS	1.00	173.33	6526.96	0.00	0.00	0.00	6526.96	234,970
FOP	< > Project Managers	36.00	MO	FA-PROJM	1.00	173.33	6630.52	0.00	0.00	0.00	6630.52	238,699
FOP	< > Contract Administrators	36.00	MO	FB-ACONT	1.00	173.33	4736.67	0.00	0.00	0.00	4736.67	170,520
FOP	< > Payroll Clerks	36.00	MO	FB-PAYCL	1.00	173.33	2413.84	0.00	0.00	0.00	2413.84	86,898
FOP	< > Engineers, Electrical	6.00	MO	FC-ENELC	1.00	1,040	36,680	0.00	0.00	0.00	36,680	6113.40
FOP	< > Engineers, Civil	36.00	MO	FC-ENGCI	1.00	173.33	5163.33	0.00	0.00	0.00	5163.33	185,880
FOP	< > Field Constr. QC. \ Lab Technician	36.00	MO	FC-FLABT	1.00	173.33	3638.99	0.00	0.00	0.00	3638.99	131,004
FOP	< > Inspectors	36.00	MO	FC-INSPE	1.00	173.33	2925.95	0.00	0.00	0.00	2925.95	105,334
FOP	< > Chief Scheduler & Planning Eng.	12.00	MO	FC-SCHCF	1.00	173.33	5163.33	0.00	0.00	0.00	5163.33	61,960
FOP	< > Surveyors, Chief	18.00	MO	FC-SURYC	1.00	173.33	3880.80	0.00	0.00	0.00	3880.80	69,854
FOP	< > Surveyors	36.00	MO	FC-SURYR	1.00	173.33	3453.90	0.00	0.00	0.00	3453.90	124,340
TOTAL Overhead Items - AA											56,178	3,482,803
											5,130,108	307,286
											0	8,920,196

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



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01. Demolition

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01.01. Demo Large Pump Station											
-----											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
01. Demolition											
01.01. Demo Large Pump Station											
USR AA <02049 0001 > Large Pump Station Demolition											
	1.00	EA	CODFB8	0.04	198.51	6129.66	6229.53	0.00	0.00	12359.19	
					199	6,130	6,230	0	0	12,359	12359.19
TOTAL Demo Large Pump Station											
	1.00	EA			199	6,130	6,230	0	0	12,359	12359.19

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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01.02. Demo Small Pump Station	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
01.02. Demo Small Pump Station											
USR AA <02049 0001 > Small Pump Station Demolition	8.00	EA	CODFB8	0.17	47.62	1470.39	1494.35	0.00	0.00	2964.74	
					381	11,763	11,955	0	0	23,718	2964.74
TOTAL Demo Small Pump Station	1.00	EA			381	11,763	11,955	0	0	23,718	23717.88
TOTAL Demolition	1.00	EA			579	17,893	18,184	0	0	36,077	36077.07

LABOR ID: C43RES      EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A    UPB ID: UP01EA

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02. Perimeter Dam, Separator Dam

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02.01. Clear and Grub	QUANTITY	DOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL	COST	UNIT	COST
L MIL AA <02109 0152 > Clear & grub, cut & chip medium trees, 10" dia															
NOTE: Price from Test Cell Bid															
TOTAL Clear and Grub															
	10365	AC				232,159	4,102,675	4,628,815		0	0	8,731,491	842.65		
						22.40	395.93	446.71		0.00	0.00	842.65			
						0.27	232,159	4,102,675	4,628,815	0	0	8,731,491	842.65		

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

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02.02. Stripping	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <02241 0020 > Loam or topsoil, 200' haul, 6" deep, 200 HP dozer, remove/pile on site	1070000	CY	CODTB10B	108.13	14,873	500,760	696,249	0.65	0.00	0	1,197,009
TOTAL Stripping	1070000	CY			14,873	500,760	696,249	0	0	1,197,009	1.12

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
02.03. Blanket Drain											
L AF AA <02244 1505 > Base course, sand, washed & graded, compacted, 6"D, large areas	192852	CY	COFGB36C	18.42	52,340	1,928,481	11.87	21.80	0.00	8,421,905	43.67
TOTAL Blanket Drain	192852	CY			52,340	1,928,481		4,203,383	0	8,421,905	43.67

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA

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02.04. Toe Drain	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <02709 2110 > Piping, subdrainage, perforated PVC, 6" dia	99130	LF	CLABB14	37.50	15,861	275,215	0.43	2.85	0.00	600,321	6.06
MIL AA <02768 2045 > Piping, drainage & sewage, SDR 35,6" dia,PVC,no exc/bkfill,10' L,B&S	7540.00	LF	USKCSKWK2	46.88	322	6,978	0.00	1.44	0.00	2.37	2.37
MIL AA <02752 1130 > CB or manholes, conc, precast, 4' ID, 8' deep	200.00	EA	UOEHB22	0.25	15.20	358.13	130.24	489.17	0.00	977.54	977.54
MIL AA <02752 1300 > CB or manholes, conc, slab tops, precast, 8" thick, 4' dia	200.00	EA	CODLB6	1.00	3,040	71,627	26,048	97,834	0	195,509	977.54
MIL AA <02752 3910 > CB or manholes, steps,galv. steel rung, 10" x 10"	1800.00	EA	AMABBRIC1	5.00	3.00	66.83	16.25	167.29	0.00	250.37	250.37
MIL AA <02752 4600 > Manhole cover & frame, CI, city type, 24" dia x 265 lb	200.00	EA	CODLB6	1.00	600	13,365	3,251	33,459	0	50,075	250.37
MIL AA <02752 1300 > CB or manholes, conc, Base slab, precast, 8" thick, 4' dia	200.00	EA	CODLB6	1.00	3.00	66.83	16.25	167.29	0.00	250.37	250.37
TOTAL Toe Drain	106670	LF		21,383	401,988	78,763	513,143	0	993,894	9.32	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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02.05. Random Fill Embankment	QUANTITY	DOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
02.05. Random Fill Embankment Includes Dam, Bench, Berm and Access Road Corridor												
MIL AA <02226 3220 > Excavation, bulk, 4.5 cycle/hr, push loaded self prop scraper, 43 BCY	19772438	CY	CODSB33H	193.75	148,293	5,785,415	14945986	0.76	0.00	0.00	20,731,401	1.05
MIL AA <02224 7020 > Excavating, bulk, dozer, 300 HP, large area, open site, rough grade NOTE: Use for shaping embankment	19772438	CY	CODTB10M	300.00	98,862	3,335,610	7,167,509	0.36	0.00	0.00	10,503,119	0.53
AF AA <02220 5810 > Compaction, steel wheel tandem roller, 10 ton	19772438	CY	COFCB10Y	337.50	86,999	2,963,888	1,694,498	0.09	0.00	0.00	4,658,386	0.24
MIL AA <02220 9040 > Compaction, water, wagon, 6000 gal, 6 mile haul	19772438	CY	COFWB59	200.00	98,862	3,699,423	6,499,200	0.33	0.21	0.00	14,429,925	0.73
TOTAL Random Fill Embankment	19772438	CY			433,016	15784337	30307193	4,231,302	0	0	50,322,832	2.55

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UFG1EA

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02.06. Chimney Drain	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
02.06. Chimney Drain											
B AF AA <02244 1505 > On site Sand Compacted in 3' Lifts	130250	CY	COFGB36C	118.72	5,484	202,096	239,986	0	0	442,082	3.39
NOTE: Price from Test Cell Bid											
TOTAL Chimney Drain	130250	CY			5,484	202,096	239,986	0	0	442,082	3.39

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA



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02.07. Slurry Wall	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
02.07. Slurry Wall											
USR AA <02081 0001 > Slurry wall					0.03	1.00	1.29	1.85	0.00		4.15
NOTE: Price from Test Cell Bid	4485936	SF	COFCV	224.46	119,774	4,494,908	5,804,353	8,303,916	0	18,603,177	4.15
TOTAL Slurry Wall	4485936	SF			119,774	4,494,908	5,804,353	8,303,916	0	18,603,177	4.15

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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02.08. Soil Cement	QUANTITY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
B MIL AA <02266 1300 > Erosion control, soil cement, 7% portland cement, in place NOTE: Price from Test Cell Bid	715414 CY	COFCB70A	6.70	640,296	18244059	11839672	4,233,176	0.00	0	34,316,907
USR AA <02266 1301 > Erosion control, soil cement, 7% portland cement, in place stair stepped NOTE: Price from Test Cell Bid Labor adjusted for Stair Stepping	74245 CY	COFCB70A	5.43	82,085	2,338,873	1,517,835	439,315	0.00	0	4,296,024
TOTAL Soil Cement	789659 CY			722,381	20582932	13357508	4,672,491	0	38,612,931	48.90

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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02.09. Toe Drain Outfall End Treatment		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR AA <02270 0099 > Rip-rap, random, machine placed for slope protection		174.00	TON	UOEHB12G	66.08	0.03	1.50	0.63	27.29	0.00	29.41	29.41
USR AA <02266 0009 > Filter Fabric		348.00	SY	CLAB880A	36.00	0.08	1.01	0.62	6.42	0.00	8.05	8.05
TOTAL Toe Drain Outfall End Treatment		174.00	TON			34	612	326	6,982	0	7,919	45.51

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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02.15. Select Fill																
QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST						
02.15. Select Fill																
M AF	AA	<02234 4100 >	Select Fill, hauling, w/loading, 12 CY truck, 5 mile haul,	41000	CY	CODEB30	105.00	1,173	46,629	1.14	1.62	4.28	0.00	0.00	288,415	7.03
MIL	AA	<02224 7020 >	Excavating, bulk, dozer, 300 HP, large area, open site, rough grade NOTE: Use for shaping embankment	41000	CY	CODETB10M	300.00	205	6,917	0.17	0.36	0.00	0.00	0.00	21,779	0.53
AF	AA	<02220 5810 >	Compaction, steel wheel tandem roller, 10 ton	41000	CY	COFCB10Y	337.50	180	6,146	0.15	0.09	0.00	0.00	0.00	9,660	0.24
MIL	AA	<02220 9040 >	Compaction, water, wagon, 6000 gal, 6 mile haul	41000	CY	COFWB59	200.00	205	7,671	0.19	0.33	0.21	0.00	0.00	29,922	0.73
		TOTAL Select Fill		41000	CY			1,763	67,363	98,158	184,254	0	0	0	349,775	8.53

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
02.20. Seeding												
L MIL AA <02932 0320 > Seeding, Hydro seeding,						15.63	666.20	280.60	587.97	0.00	1534.77	
NOTE: Price for Test Cell Bid		234.00	ACR	COELB66	0.06	3,656	155,892	65,660	137,584	0	359,135	1534.77
TOTAL Seeding		234.00	AC			3,656	155,892	65,660	137,584	0	359,135	1534.77

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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02.21. Sodding	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
B RSM AA <02933 1000 > Sodding, bent grass sod, on level ground, over 6 MSF	10890	MSF	CLABB63	0.49	111,259	2,025,250	226,295	2,528,549	0	4,780,095	438.94
TOTAL Sodding	250.00	AC			111,259	2,025,250	226,295	2,528,549	0	4,780,095	19120.38

02.21. Sodding

LABOR ID: C43RES      EQUIP ID: C43RES      CURRENCY in DOLLARS      CREW ID: NATO1A      UPB ID: UP01EA

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02.95. Cell Instruments & Controls				QUANTITY	DOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
02.95. Cell Instruments & Controls																
02.95.95. Controls																
USR AA <15743 0001 > Cell Level IO Points																
	3.00	EA	N/A		0.00		0.00	200.00	0.00	856.00	0.00	0.00	0.00	1056.00		1056.00
								600		2,568				3,168		1056.00
USR AA <15743 0001 > SP IO Points																
	3.00	EA	N/A		0.00		0.00	200.00	0.00	856.00	0.00	0.00	0.00	1056.00		1056.00
								600		2,568				3,168		1056.00
USR AA <15743 0001 > Telemetry To/From Gated Structure																
	3.00	EA	N/A		0.00		0.00	100.00	0.00	535.00	0.00	0.00	0.00	635.00		635.00
								300		1,605				1,905		635.00
USR AA <15743 0001 > 16 VHF Data Radios Structure																
	3.00	EA	N/A		0.00		0.00	300.00	0.00	1605.00	0.00	0.00	0.00	1905.00		1905.00
								900		4,815				5,715		1905.00
AF AA <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher																
					0.01		0.01	0.47	0.13	0.00	0.00	0.00	0.00	0.60		0.60
					33		33	1,412	392	0				1,803		0.60
USR AA <15743 0001 > Control Conduit & Cable																
	3000.00	LF	EELER18	30.35			0.11	3.00	0.00	4.28	0.00	0.00	0.00	7.28		7.28
					326		326	9,000	0	12,840				21,840		7.28
TOTAL Controls																
	1.00	EA			359		359	12,812	392	24,396	0			37,599		37599.00
TOTAL Cell Instruments & Controls																
	1.00	EA			359		359	12,812	392	24,396	0			37,599		37599.00
TOTAL Perimeter Dam, Separator Dam																
	1.00	EA			1718481		1718481	50260106	57793737	24806000	0			132,859,843		132859843

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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03. Recreation Areas

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TOTAL Recreation Areas										
04. Pump Stations										
04.01. Pump Station 1 - C43P1										
04.01.01. Pump Station 1										
04.01.01.01. Substructure										
04.01.01.01.01. Standard Foundations										
04.01.01.01.01.01. Wall Foundations										
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	3612.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49
					330	5,964	0	3,015	0	8,978
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	153.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
					2,125	55,569	0	147,339	0	202,908
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4632.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	584,836	0	584,836
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped	4632.00	CY	CLABC20	50.00	0.16	2.75	1.71	0.00	0.00	4.46
					741	12,749	7,911	0	0	20,660
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	20844	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17
					186	3,612	0	0	0	3,612
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	20844	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22
					229	4,484	0	0	0	4,484
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	20844	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25
					265	5,159	0	0	0	5,159
TOTAL Wall Foundations	1.00	LF			3,876	87,537	7,911	735,190	0	830,637
TOTAL Standard Foundations										
	1.00	SF			3,876	87,537	7,911	735,190	0	830,637
04.01.01.01.02. Special Foundation Conditions										
04.01.01.01.02.04. Dewatering										
B USR AA <02144 1001 > Wellpoints, compl instl, first month, 600' L header, 8" dia	1266.00	LF	UOELEQLT4	1.71	2.34	99.97	0.00	42.80	0.00	142.77
					2,368	126,561	0	54,185	0	180,746
B RSM AA <02144 1100 > Wellpoints, compl instl, ea addl month, 600' L header, 8" dia	6330.00	LF	UOELEQLT4	4.27	0.94	39.99	0.00	26.75	0.00	66.74
					5,937	253,123	0	169,328	0	422,450
NOTE: Use for 5 additional months (5 x 1266)										

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA



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30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR AA <02161 0001 > Steel Sheet Pile	38104	SF	CPIDB40	95.63	3,189	129,554	61,858	16.05	0.00	21.07	21.07
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi NOTE: Use for Tremie Concrete	14804	CY	N/A	0.00	0	0	0	74.90	0.00	74.90	74.90
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped NOTE: Use for Tremie Concrete	14804	CY	CLABC20	23.13	5,121	88,100	54,668	0.00	0.00	9.64	9.64
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7 NOTE: Use for I Wall	12.60	TON	SIWRRODM4	0.38	134	3,515	0	12,134	0.00	15,648	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi NOTE: Use for Anchor Wall	645.00	CY	N/A	0.00	0	0	0	81,438	0.00	81,438	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped NOTE: Use for Anchor wall	645.00	CY	CLABC20	13.75	375	6,456	4,006	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids NOTE: Use for Anchor Wall	16811	SF	ACMACEF11	67.50	249	4,855	0	540	0.00	5,395	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood NOTE: Use for I Wall	16811	SF	ACARC2	54.38	1,854	35,037	0	13,671	0.00	48,708	2.90
MIL AA <02161 2550 > Sheet piling, stl, connections & struts, 2/3 salvage, wales	33.00	TON	ACARF4	0.15	1,320	39,440	22,303	6,597	0.00	68,340	2070.92
TOTAL Dewatering	1.00	SF		21,148	686,640	142,836	2,058,280	0	0	2,887,756	2887756
TOTAL Special Foundation Conditions	1.00	SF		21,148	686,640	142,836	2,058,280	0	0	2,887,756	2887756
04.01.01.01.04. Foundation Excavation											
04.01.01.01.04.01. Excavation for Basements											
USR AA <02228 0371 > Excavate, wet soil	42930	CY	CODEB12C	256.50	335	16,584	12,458	0.00	0.00	0.68	0.68
CIV AA <02228 0392 > Excavate, mcm soil, 3CY excavator	62319	CY	CODEB12Y	288.50	648	24,018	19,369	0.00	0.00	0.70	0.70

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Excavation for Basements		1.00	CY			983	40,602	31,827	0	0	72,429	72428.63
TOTAL Foundation Excavation		1.00	CY			983	40,602	31,827	0	0	72,429	72428.63
TOTAL Substructure		1.00	SF			26,007	814,778	182,574	2,793,470	0	3,790,822	3790822
04.01.01.02. Superstructure												
04.01.01.02.01. Floor Construction												
04.01.01.02.01.03. Floor Decks and Slabs												
CIV AA <03150 7000 > Forms in place, elev slab, edge form to 6" high, 4 use		552.00	LF	ACARC1	62.50	0.06	1.16	0.00	0.43	0.00	1.58	1.58
Note: Use for elevated slab and roof slab for control room						35	638	0	236	0	874	1.58
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use		2776.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
Note: Use for elevated slab and roof slab for control room						269	5,084	0	3,178	0	8,262	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		2776.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
Note: Use for elevated slab and roof slab for control room						25	481	0	0	0	481	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped		55.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
Note: Use for elevated slab and roof slab for control room						20	336	209	0	0	545	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
Note: Use for elevated slab and roof slab for control room						0	0	0	6,944	0	6,944	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		3.43	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
Note: Use for elevated slab and roof slab for control room						48	1,246	0	3,303	0	4,549	1326.20
TOTAL Floor Decks and Slabs		1.00	SF			397	7,785	209	13,662	0	21,656	21656.07

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.02.01.50. Intake Zone												
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	28800	SF	ACARC2	54.38	3,177	2,08	60,025	0	0.81	0.00	2.90
									23,420	0	83,445	2.90
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	53.70	TON	SIWRR0DM4	0.38	573	278.93	0.00	963.00	0.00	1241.93	
							14,979	0	51,713	0	66,692	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	1623.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	
							0	0	204,920	0	204,920	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	1623.00	CY	CLABC20	13.75	944	10.01	6.21	0.00	0.00	16.22	
							16,244	10,080	0	0	26,324	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	28800	SF	ACMACEFI1	67.50	426	0.29	0.00	0.03	0.00	0.32	
							8,317	0	924	0	9,242	0.32
TOTAL Intake Zone		1.00	CY			5,120	99,565	10,080	280,978	0	390,623	390622.82
04.01.01.02.01.51. Intake Bays EL -16 to EL -6												
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	12083	SF	ACARC2	54.38	1,333	2.08	25,183	0	0.81	0.00	2.90
									9,826	0	35,009	2.90
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	22.30	TON	SIWRR0DM4	0.38	238	278.93	0.00	963.00	0.00	1241.93	
							6,220	0	21,475	0	27,695	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	674.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	
							0	0	85,099	0	85,099	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	674.00	CY	CLABC20	13.75	392	10.01	6.21	0.00	0.00	16.22	
							6,746	4,186	0	0	10,932	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	12083	SF	ACMACEFI1	67.50	179	0.29	0.00	0.03	0.00	0.32	
							3,490	0	388	0	3,877	0.32
TOTAL Intake Bays EL -16 to EL -6		1.00	CY			2,142	41,639	4,186	116,788	0	162,613	162612.90
04.01.01.02.01.52. Intake Bays EL -6 to EL -3.5												
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	4740.00	SF	ACARC2	54.38	523	2.08	9,879	0	0.81	0.00	2.90
									3,855	0	13,734	2.90
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	8.00	TON	SIWRR0DM4	0.38	85	278.93	0.00	963.00	0.00	1241.93	
							2,231	0	7,704	0	9,935	1241.93

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	258.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	258.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	4740.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	1589.00	SF	ACARCL	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	12.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	355.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped	355.00	CY	CLABC20	50.00	0.16	2.75	1.71	0.00	0.00	4.46	4.46
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	3828.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
TOTAL Intake Bays EL -6 to EL -3.5	1.00	CY		1,231	24,684	2,209	101,990	0	0	128,883	128883.10
04.01.01.02.01.53. Pipe Gallery EL 10 to EL 22											
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	37184	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	57.00	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1710.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1710.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	37184	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
TOTAL Pipe Gallery EL 10 to EL 22	1.00	CY		6,255	121,252	10,620	302,227	0	0	434,099	434099.13

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.02.01.54. Intake Bays EL -3.5 to EL 7												
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	19908 SF	ACARC2	54.38	2,196	0.11	2.08	0.00	0.81	0.00	2.90	2.90
MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	36.00 TON	SIWRRODM4	0.38	384	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	1085.00 CY	N/A	0.00	0	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	1085.00 CY	CLABC20	13.75	631	10.859	6,739	0.00	136,992	0	136,992	126.26
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	19908 SF	ACWACEFI1	67.50	295	0.01	0.29	0.00	0.03	0.00	0.32	0.32
TOTAL Intake Bays EL -3.5 to EL 7		1.00 CY		3,506	68,143	6,739	188,488	0	263,370	263,369.60		
04.01.01.02.01.60. Fill Concrete												
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	6644.00 SF	ACARC1	43.75	607	0.09	1.65	0.00	0.83	0.00	2.49	2.49
MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	43.00 TON	SIWRRODM4	0.29	597	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	1288.00 CY	N/A	0.00	0	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 2950 >	Placing conc, foundation mats, over 20 CY, pumped	1288.00 CY	CLABC20	50.00	206	0.16	2.75	1.71	0.00	0.00	4.46	4.46
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	2176.00 SF	ACWACEFI1	112.50	19	0.01	0.17	0.00	0.00	0.00	0.17	0.17
TOTAL Fill Concrete		1.00 CY		1,430	30,510	2,200	209,577	0	242,286	242,286.26		
04.01.01.02.01.61. Pipe Gallery Slab EL 7 to EL 10												
MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	82.00 TON	SIWRRODM4	0.29	1,139	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	2471.00 CY	N/A	0.00	0	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 2950 >	Placing conc, foundation mats, over 20 CY, pumped	2471.00 CY	CLABC20	50.00	395	0.16	2.75	1.71	0.00	0.00	4.46	4.46

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST	
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		22239	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17
						198	3,854	0	0	0	3,854
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use		2539.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
						246	4,650	0	2,907	0	7,557
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use		2634.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05
						241	4,349	0	1,043	0	5,392
TOTAL Pipe Gallery Slab EL 7 to EL 10		1.00	CY			2,219	49,436	4,220	394,904	0	448,561
											448,561
04.01.01.02.01.62. Operating Deck Slab EL 22-EL 25											
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		21200	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17
						189	3,674	0	0	0	3,674
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped		2367.00	CY	CLABC20	50.00	0.16	2.75	1.71	0.00	0.00	4.46
						379	6,515	4,043	0	0	10,558
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		2367.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
						0	0	0	298,857	0	298,857
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		78.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
						1,083	28,329	0	75,114	0	103,443
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use		3065.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05
						280	5,061	0	1,213	0	6,274
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use		13093	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
						1,270	23,980	0	14,990	0	38,970
TOTAL Operating Deck Slab EL 22-EL 25		1.00	CY			3,201	67,559	4,043	390,175	0	461,776
											461,776
04.01.01.02.01.63. Service Bridge EL 16											
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		5236.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17
						47	907	0	0	0	907
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped		451.00	CY	CLABC20	50.00	0.16	2.75	1.71	0.00	0.00	4.46
						72	1,241	770	0	0	2,012
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		451.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
						0	0	0	56,943	0	56,943
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		15.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
						208	5,448	0	14,445	0	19,893

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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U.S. Army Corps of Engineers  
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30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use		4128.00	SF	ACARCL	43.75	377	1.65 6,816	0.00	0.40 1,634	0.00	2.05 8,450	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20" high, 4 use		3700.00	SF	ACARCL	61.88	359	1.83 6,777	0.00	1.14 4,236	0.00	2.98 11,013	2.98
TOTAL Service Bridge EL 16		1.00	CY			1,063	21,189	770	77,259	0	99,218	99217.89
04.01.01.02.01.64. Entrance Ramps												
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		2029.00	SF	ACARCL	54.38	224	2.08 4,229	0.00	0.81 1,650	0.00	2.90 5,879	2.90
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		2180.00	SF	ACARCL	112.50	19	0.17 378	0.00	0.00	0.00	0.17 378	0.17
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped		155.00	CY	CLABC20	50.00	25	2.75 427	1.71	0.00	0.00	4.46 691	4.46
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		155.00	CY	N/A	0.00	0.00	0.00	0.00	126.26 19,570	0.00	126.26 19,570	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		5.00	TON	SIWRRODM4	0.29	13.89	363.20 1,816	0.00	963.00 4,815	0.00	1326.20 6,631	1326.20
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		276.00	SF	ACARCL	43.75	25	1.65 456	0.00	0.83 230	0.00	2.49 686	2.49
TOTAL Entrance Ramps		1.00	CY			363	7,305	265	26,266	0	33,835	33835.30
04.01.01.02.01.65. Miscellaneous Slabs												
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		10617	SF	ACARCL	112.50	94	0.17 1,840	0.00	0.00	0.00	0.17 1,840	0.17
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped		606.00	CY	CLABC20	50.00	97	2.75 1,668	1.71	0.00	0.00	4.46 2,703	4.46
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		606.00	CY	N/A	0.00	0.00	0.00	0.00	126.26 76,514	0.00	126.26 76,514	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		20.00	TON	SIWRRODM4	0.29	13.89	363.20 7,264	0.00	963.00 19,260	0.00	1326.20 26,524	1326.20
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		3303.00	SF	ACARCL	43.75	302	1.65 5,454	0.00	0.83 2,757	0.00	2.49 8,210	2.49

LABOR ID: C43RES EQUIP ID: C43RES

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CREW ID: NAT01A UPB ID: UP01EA

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Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
CIV AA <03150 1500 >	Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	148.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
						14	271		169	0	441	2.98
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1954.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						216	4,073		1,589	0	5,662	2.90
MIL AA <03158 0150 >	Forms in place, footing, continuous wall, plywood, 4 use	1712.00	SF	ACARC1	60.63	0.07	1.19	0.00	0.83	0.00	2.03	2.03
						113	2,040		1,429	0	3,469	2.03
TOTAL Miscellaneous Slabs		1.00	CY			1,114	22,609	1,035	101,718	0	125,361	125361.32
04.01.01.02.01.66. Fuel Oil Storage Area												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	6.00	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						64	1,674		5,778	0	7,452	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	82.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0		10,353	0	10,353	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	82.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						48	821	509	0	0	1,330	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	2544.00	SF	ACMACEFT1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						38	735		82	0	816	0.32
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	14.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
						194	5,085		13,482	0	18,567	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	185.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0		23,358	0	23,358	126.26
AF AA <03372 1600 >	Placing conc, elev slabs, over 10" thick, pumped	185.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
						66	1,132	702	0	0	1,834	9.91
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	4995.00	SF	ACMACEFT1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
						44	866		0	0	866	0.17
MIL AA <03158 0150 >	Forms in place, footing, continuous wall, plywood, 4 use	910.00	SF	ACARC1	60.63	0.07	1.19	0.00	0.83	0.00	2.03	2.03
						60	1,084		759	0	1,844	2.03
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2544.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						281	5,302		2,069	0	7,371	2.90
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	347.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
						32	573		290	0	863	2.49

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA



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U.S. Army Corps of Engineers  
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30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Fuel Oil Storage Area		1.00	CY			826	17,270	1,211	56,171	0	74,653	74652.71
04.01.01.02.01.75. Sand Fill												
B AF	AA <02234 4100 > Sand Fill, hauling, w/loading, 12 CY truck, 5 mile haul,	3730.00	CY	CODEB30	119.70	0.03	1.00	1.42	0.00	0.00	2.42	2.42
AF	AA <02220 5810 > Compaction, steel wheel tandem roller, 10 ton	3730.00	CY	COFCB10Y	337.50	0.00	0.15	0.09	0.00	0.00	0.24	0.24
MIL	AA <02220 9040 > Compaction, water, wagon, 6000 gal, 6 mile haul	3730.00	CY	COFWB59	200.00	0.01	0.19	0.33	0.21	0.00	0.73	0.73
MIL	AA <02216 5510 > Backfill, strl, 6" lifts, by machine, no compaction, around foundation	3730.00	CY	CODEB12A	121.88	0.02	0.81	0.40	0.00	0.00	1.21	1.21
AF	AA <02220 7060 > Compaction, struct/trench, 8" lifts, 2 passes 18" wide, vib plate	3730.00	CY	COFCB18	53.75	0.06	0.69	0.05	0.00	0.00	0.75	0.75
TOTAL Sand Fill		3730.00	CY			398	10,598	8,521	798	0	19,917	5.34
TOTAL Floor Construction												
TOTAL Floor Construction		1.00	SF			29,264	589,544	56,307	2,261,001	0	2,906,852	2906852
04.01.01.02.02. Roof Construction												
04.01.01.02.02.01. Structural Frame												
M MIL	AA <05150 8210 > Structural steel Superstructure	300.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16	2905.16
M MIL	AA <05150 8210 > Structural Stl Louver Enclosure	16.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16	2905.16
M MIL	AA <05150 8210 > Pump Gear Base Plate	39.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16	2905.16
B MIL	AA <05150 8210 > Engine Maintenance Platform	560.00	SF	SIWSE21	27.79	0.29	17.00	3.65	32.10	0.00	52.75	52.75
B MIL	AA <05150 8210 > Roof Access Platform	8.00	SF	SIWSE21	27.79	0.29	17.00	3.65	32.10	0.00	52.75	52.75
M MIL	AA <05150 8210 > Aux Equipment Support Platform	3.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16	2905.16

LABOR ID: C43RES

EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <05518 0010 > Ladder, steel, 20" wide, bolted to conc, w/cage	52.00	VLF	SIWSE4	6.25	0.64	39.88	1.51	64.20	0.00	105.59	
					33	2,074	78	3,338	0	5,491	105.59
MIL AA <05523 0530 > Railing, pipe, steel, 2 rail, on stairs, primed, 2" dia	700.00	LF	SIWSE4	20.00	0.20	12.46	0.47	12.04	0.00	24.97	
					140	8,725	330	8,426	0	17,480	24.97
M MIL AA <05150 8210 > Stop Log Recess Armoring	28.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16	
					299	17,640	3,785	59,920	0	81,345	2905.16
USR AA <05060 0011 > Weld shear connectors, 3/4" dia, 4-1/2" long NOTE: Use at stop log recess armoring	2901.00	EA	SIWSE10	128.75	0.02	0.49	0.47	0.64	0.00	1.60	
					45	1,427	1,354	1,862	0	4,643	1.60

TOTAL Structural Frame

4,499 265,058 56,010 857,900 0 1,178,968 1178968

04.01.01.02.02.03. Roof Decks and Slabs

CIV AA <03150 7000 > Forms in place, elev slab, edge form to 6" high, 4 use Note: Use for elevated slab and roof slab for control room	672.00	LF	ACARC1	62.50	0.06	1.16	0.00	0.43	0.00	1.58	
					43	777	0	288	0	1,064	1.58
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use Note: Use for elevated slab and roof slab for control room	21168	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
					2,053	38,769	0	24,235	0	63,004	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish Note: Use for elevated slab and roof slab for control room	21168	SF	ACMACEFT1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					188	3,668	0	0	0	3,668	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped Note: Use for elevated slab and roof slab for control room	412.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	
					147	2,520	1,564	0	0	4,084	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi Note: Use for elevated slab and roof slab for control room	412.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	52,019	0	52,019	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7 Note: Use for elevated slab and roof slab for control room	25.75	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					358	9,352	0	24,797	0	34,150	1326.20

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Roof Decks and Slabs	1.00	SF			2,789	55,086	1,564	101,339	0	157,989	157989.42
TOTAL Roof Construction	1.00	SF			7,288	320,144	57,574	959,239	0	1,336,957	1336957
04.01.01.02.03. Stair Construction											
04.01.01.02.03.01. Interior Stair Structure											
MIL AA <05511 0020 > Stair, stl, grating trd & pipe r, 3'-6" W, saf nosing, stl strg Note: Use for control building	16.00	LF	SIWSE4	4.38	0.91	56.98	2.15	112.35	0.00	171.48	171.48
USR AA <05511 0021 > Spiral Stairs 3'-6" W, saf nosing, stl strg Note: Use for control building	10.00	LF	SIWSE4	6.47	0.62	38.55	1.46	224.70	0.00	264.70	264.70
MIL AA <05511 0020 > Stair, stl, grating trd & pipe r, 3'-6" W, saf nosing, stl strg Note: Use for main pump station	94.00	LF	SIWSE4	4.38	0.91	56.98	2.15	112.35	0.00	171.48	171.48
MIL AA <05518 0010 > Ladder, steel, 20" wide, bolted to conc, w/o cage	42.00	VLF	SIWSE4	6.25	0.64	39.88	1.51	58.14	0.00	99.53	99.53
MIL AA <05518 0100 > Ladder, steel, 20" wide, bolted to conc, w/o cage	45.00	VLF	SIWSE4	10.63	0.38	23.46	0.89	27.04	0.00	51.39	51.39
TOTAL Interior Stair Structure	1.00	VLF			151	9,384	355	18,264	0	28,003	28002.59
TOTAL Stair Construction	1.00	FLI			151	9,384	355	18,264	0	28,003	28002.59
TOTAL Superstructure	1.00	SF			36,702	919,072	114,236	3,238,504	0	4,271,811	4271811
04.01.01.03. Exterior Closure											
04.01.01.03.01. Exterior Walls											
04.01.01.03.01.01. Exterior Skin											
M MIL AA <03454 0360 > Wall panel, 8' x 16', 6" thick, uninsulated, smooth grey, mat only	29790	SF	N/A	0.00	0.00	0.00	0.00	16.05	0.00	478,130	16.05
L MIL AA <03491 0010 > Precast erection, 100' max rad, 50 ton crane, 0-1 ton/pc, wall panel	233.00	EA	SIWSE7A	1.60	4.99	275.65	64.35	0.00	0.00	339.99	339.99
TOTAL Exterior Skin	29790	SF			1,164	64,225	14,993	478,130	0	557,348	18.71

LABOR ID: C43RES EQUIP ID: C43RES

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 04. Pump Stations

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.03.01.04. Parapets											
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	3696.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					338	6,102	0	3,085	0	9,187	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.32	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					60	1,569	0	4,160	0	5,729	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	108.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	13,636	0	13,636	126.26
MIL AA <03372 2950 > Placing conc, foundation mats, over 20 CY, pumped	108.00	CY	CIABC20	50.00	0.16	2.75	1.71	0.00	0.00	4.46	
					17	297	184	0	0	482	4.46
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	3696.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					33	641	0	0	0	641	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	3696.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					41	795	0	0	0	795	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	3696.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					47	915	0	0	0	915	0.25
TOTAL Parapets	1.00	LF			536	10,319	184	20,881	0	31,384	31384.39
TOTAL Exterior Walls	1.00	SF			1,699	74,544	15,178	499,010	0	588,733	588732.56
04.01.01.03.02. Exterior Windows											
04.01.01.03.02.01. Windows											
MIL AA <08524 6580 > Aluminum Windows projected wdo, grade C, std brush fin	322.00	SF	SIWSSSNK2	12.13	0.16	10.24	0.00	31.04	0.00	41.28	
					53	3,297	0	9,995	0	13,292	41.28
TOTAL Windows	1.00	SF			53	3,297	0	9,995	0	13,292	13291.74
TOTAL Exterior Windows	1.00	SF			53	3,297	0	9,995	0	13,292	13291.74
04.01.01.03.03. Exterior Personnel Doors											
04.01.01.03.03.02. Solid Doors											
MIL AA <08109 1160 > Coml stl dr, fl, pair 3'x7'-0", full pnl hol core, 18 ga, 1.75" T	9.00	EA	ACARCARP2	1.50	1.33	26.73	0.00	404.46	0.00	431.19	
					12	241	0	3,640	0	3,881	431.19
MIL AA <08116 2940 > Steel frames KD, 3'-0" W, single, 16 ga, 4.75" D, 7'-0" high	9.00	EA	ACARCARP2	1.88	1.07	21.38	0.00	79.05	0.00	100.43	
					10	192	0	711	0	904	100.43

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATOIA UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST	
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP/MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <08713 1795 > Hinge, half mortise, US4, high freq, brass base, 4.5" x 4.5"	14.00	PR	N/A	0.00	0.00	0.00	0.00	113.54	0.00	113.54	113.54
MIL AA <08715 8540 > Lockset, std duty, entr series, cyl, w/sect trim, brass base, US26D	9.00	EA	ACARCARP1	1.00	9	180	0	159.80	0.00	179.85	179.85
MIL AA <08728 8000 > Door closer, traditional, std duty, parallel arm, primed, surf mtd	9.00	EA	ACARCARP1	0.75	12	241	0	113.82	0.00	140.54	140.54
MIL AA <09924 0320 > Int. painting, wood door & HM frame, natural finish door, ptd frame	9.00	EA	APTRPORD1	0.50	18	330	0	12.58	0.00	49.25	49.25
MIL AA <08361 2800 > Overhead coml, no frame, chain hoist, 20'x14'H, steel, 24 ga sectional Note: Use for 14' x 14'	1.00	EA	ACARCARP2	0.09	23	458	0	1755.37	0.00	2213.57	2213.57
MIL AA <08361 2650 > Overhead coml, no frame, manual, 10' x 10' H, steel, 24 ga sectional	2.00	EA	ACARCARP2	0.23	18	356	0	554.04	0.00	732.23	732.23
TOTAL Solid Doors	1.00	EA			101	1,999	0	11,380	0	13,379	13378.96
TOTAL Exterior Personnel Doors	1.00	EA			101	1,999	0	11,380	0	13,379	13378.96
TOTAL Exterior Closure	1.00	SF			1,853	79,839	15,178	520,386	0	615,403	615403.27
04.01.01.04. Roofing											
04.01.01.04.01. Roofing											
04.01.01.04.01.01. Roof Coverings											
MIL AA <07512 4420 > Built-up roofing, bond, 20 years	212.00	CSF	N/A	0.00	0.00	0.00	0.00	15.37	0.00	15.37	15.37
TOTAL Roof Coverings	1.00	SF			0	0	0	3,257	0	3,257	3257.42
04.01.01.04.01.06. Gutters and Downspouts											
MIL AA <07725 0500 > Roof drains, scupper, sst, tapered, 4" to 8" x 8" x 5"	7.00	EA	MSHMSHEEL	2.50	3	60	0	115.72	0.00	124.34	124.34
MIL AA <07621 0400 > Downspouts, aluminum 3" x 4", .024" thick, enameled	296.00	LF	MSHMSHEEL	17.50	17	364	0	1.68	0.00	2.91	2.91

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <07725 0500 > Roof drains, scupper, sst, tapered, 4" to 8" x 8" x 5" Note: Use for overflow drain		6.00	EA	MSHMSHEEL	2.50	0.40	8.62	0.00	115.72	0.00	124.34	124.34
MIL AA <04234 0450 > CMU, back-up, 12" x 8" x 16", no scaf/reinf, 2000 psi		561.00	SF	AMABD9	46.25	0.13	2.44	0.00	2.27	0.00	4.71	4.71
TOTAL Gutters and Downspouts		1.00	LF			95	1,844	0	3,274	0	5,118	5118.20
TOTAL Roofing		1.00	SF			95	1,844	0	6,532	0	8,376	8375.62
TOTAL Roofing		1.00	SF			95	1,844	0	6,532	0	8,376	8375.62
04.01.01.05. Interior Construction												
04.01.01.05.01. Partitions												
04.01.01.05.01.01. Fixed Partitions												
MIL AA <04234 0350 > CMU, back-up, 8" x 8" x 16", no scaf/reinf, 2000 psi Note: Use for control room exterior		2320.00	SF	AMABD8	50.00	0.10	1.95	0.00	1.54	0.00	3.49	3.49
MIL AA <04234 0350 > CMU, back-up, 8" x 8" x 16", no scaf/reinf, 2000 psi Note: Use for control room interior walls		2549.00	SF	AMABD8	50.00	0.10	1.95	0.00	1.54	0.00	3.49	3.49
TOTAL Fixed Partitions		1.00	SF			487	9,503	0	7,502	0	17,005	17004.98
TOTAL Partitions		1.00	SF			487	9,503	0	7,502	0	17,005	17004.98
04.01.01.05.02. Interior Personnel Doors												
04.01.01.05.02.01. Standard Interior Doors												
MIL AA <08109 1160 > Coml stl dr, fl, pair 3'x7'-0", full pni hol core, 18 ga, 1.75" T		9.00	EA	ACARCARP2	1.50	1.33	26.73	0.00	404.46	0.00	431.19	431.19
MIL AA <08116 2940 > Steel frames KD, 3'-0" W, single, 16 ga, 4.75" D, 7'-0" high		7.00	EA	ACARCARP2	1.88	1.07	21.38	0.00	79.05	0.00	100.43	100.43
MIL AA <08116 2960 > Steel frames KD, 6'-0" W, double, 16 ga, 4.75" D, 7'-0" high		1.00	EA	ACARCARP2	1.50	1.33	26.73	0.00	95.40	0.00	122.13	122.13

LABOR ID: C43RES

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CREW ID: NATO1A

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04.01. Pump Station 1 - C43P1												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MATERIAL	OTHER	TOTAL COST	UNIT COST	
MIL AA <08713 1795 > Hinge, half mortise, US4, high freq, brass base, 4.5" x 4.5"	13.50	PR	N/A	0.00	0.00	0.00	0.00	113.54	0.00	113.54	113.54	
MIL AA <08715 8540 > Lockset, std duty, entr series, cyl, w/sect trim, brass base, US26D	9.00	EA	ACARCARP1	1.00	9	20.05	0.00	159.80	0.00	179.85	179.85	
MIL AA <08728 8000 > Door closer, traditional, std duty, parrallel arm, primed, surf mtd	9.00	EA	ACARCARP1	0.75	12	26.73	0.00	113.82	0.00	140.54	140.54	
MIL AA <09924 0320 > Int. painting, wood door & HM frame, natural finish door, ptd frame	9.00	EA	APTRPORD1	0.50	18	36.67	0.00	12.58	0.00	49.25	49.25	
MIL AA <08361 2700 > Overhead coml, no frame, manual, 12' x 12' H, steel, 24 ga sectional Note: Use for 9' x 12'	1.00	EA	ACARCARP2	0.19	11	213.83	0.00	747.38	0.00	961.21	961.21	
TOTAL Standard Interior Doors											10,527	10526.64
TOTAL Interior Personnel Doors											10,527	10526.64
04.01.01.05.04. Interior Specialties												
04.01.01.05.04.01. Guard Rails Toilet Partitions												
USR AA <05523 0960 > Guard Rail (3 - Rail 1-1/2" Dia) NOTE: Use control building	124.00	LF	SIWSE4	17.39	29	14.33	0.54	28.89	0.00	43.76	43.76	
USR AA <05523 0960 > Guard Rail (3 - Rail 1-1/2" Dia) NOTE: Use for main pump station	272.00	LF	SIWSE4	17.39	63	14.33	0.54	28.89	0.00	43.76	43.76	
TOTAL Guard Rails											17,331	17330.82
TOTAL Interior Specialties											17,331	17330.82
TOTAL Interior Construction											44,862	44862.45

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.06. Interior Finishes												
04.01.01.06.01. Wall Finishes												
04.01.01.06.01.04. Tile and Terrazzo Wall Finishes												
M MIL AA <09312 5950 > Ceramic tile, thin set, 2" x 2", back mounted, unglz mosaic wall tile Note: Use for control room	680.00	SF	ATIFD7	23.75	0.08	1.61 1,094	0.00	0.00	7.49 5,093	0.00	9.10 6,188	9.10
TOTAL Tile and Terrazzo Wall Finishes	1.00	SF			57	1,094	0	0	5,093	0	6,188	6187.52
04.01.01.06.01.05. Painting to Wall												
L MIL AA <09924 0110 > Int. painting, conc & CMU surfaces, 1 ct primer, 2 ct finish, brush Note: Use for control room	2584.00	SF	APTRPORD1	26.36	0.04	0.70 1,797	0.00	0.00	0.33 857	0.00	1.03 2,655	1.03
L MIL AA <09924 0110 > Int. painting, conc & CMU surfaces, 1 ct primer, 2 ct finish, brush Note: Use for Main Pump Station	29790	SF	APTRPORD1	26.36	0.04	0.70 20,722	0.00	0.00	0.33 9,881	0.00	1.03 30,603	1.03
TOTAL Painting to Wall	1.00	SF			1,227	22,519	0	0	10,738	0	33,258	33257.81
TOTAL Wall Finishes	1.00	SF			1,284	23,614	0	0	15,832	0	39,445	39445.33
04.01.01.06.02. Flooring and Floor Finishes												
04.01.01.06.02.01. Tile Floor Finishes												
MIL AA <09312 3160 > Ceramic tile, face mtd, 2" x 2", adh bed, cush edge, mosaic floor tile Note: Use for control room	149.00	SF	ATIFD7	23.75	0.08	1.61 240	0.00	0.00	5.19 773	0.00	6.80 1,013	6.80
MIL AA <09661 7400 > Resilient, vinyl composition tile, 1/8" thick, solid Note: Use for control room	651.00	SF	ATIFTHIF1	62.50	0.02	0.33 217	0.00	0.00	1.99 1,296	0.00	2.32 1,512	2.32
TOTAL Tile Floor Finishes	1.00	SF			23	456	0	0	2,069	0	2,525	2525.29

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.06.02.08. Painting and Staining Floors												
MIL AA <03396 2000 > Finishing floors, add, hardener, metallic, .50 PSF, light service Note: Use for Control room	288.00	SF	ACMACEF11	106.25	0.01	0.18	0.00	0.00	0.16	0.00	0.34	0.34
MIL AA <03396 2000 > Finishing floors, add, hardener, metallic, .50 PSF, light service Note: Use for Main Pump Station	20370	SF	ACMACEF11	106.25	0.01	0.18	0.00	0.00	0.16	0.00	0.34	0.34
TOTAL Painting and Staining Floors	1.00	SF			194	3,791	0	0	3,316	0	7,106	7106.35
TOTAL Flooring and Floor Finishes	1.00	SF			217	4,247	0	0	5,384	0	9,632	9631.65
04.01.01.06.03. Ceiling and Ceiling Finishes												
04.01.01.06.03.04. Acoustical Ceiling Tiles & Panel												
MIL AA <09514 0900 > Susp acct cly bds, 24" x 24", 5/8" T, no spnns sys, al fcd, mnri fbr	977.00	SF	ACARCARP1	75.00	0.01	0.27	0.00	0.00	1.47	0.00	1.73	1.73
MIL AA <09134 0300 > Suspension sys for board & tile, 2' x 2' grid, class A, T bar	977.00	SF	ACARCARP1	81.25	0.01	0.25	0.00	0.00	0.43	0.00	0.67	0.67
MIL AA <07218 0860 > Wall/ceiling insul, 6" thk, R19, 15" W, fbglis, unfaced, batt/blkt	977.00	SF	ACARCARP1	143.75	0.01	0.14	0.00	0.00	0.35	0.00	0.49	0.49
TOTAL Acoustical Ceiling Tiles & Panel	1.00	SF			32	638	0	0	2,195	0	2,834	2833.79
04.01.01.06.03.06. Painting and Staining Ceilings												
L MIL AA <09924 0110 > Int. painting, conc & CMU surfaces, 1 ct primer, 2 ct finish, brush Note: Use for control building	319.00	SF	AFTRPORD1	18.45	0.05	0.99	0.00	0.00	0.33	0.00	1.33	1.33
L MIL AA <09924 0110 > Int. painting, conc & CMU surfaces, 1 ct primer, 2 ct finish, brush Note: Use for Main Pump Station	21168	SF	AFTRPORD1	18.45	0.05	0.99	0.00	0.00	0.33	0.00	1.33	1.33
TOTAL Painting and Staining Ceilings	1.00	SF			1,165	21,352	0	0	7,127	0	28,479	28478.87
TOTAL Ceiling and Ceiling Finishes	1.00	SF			1,196	21,990	0	0	9,323	0	31,313	31312.66

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Interior Finishes		1.00	SF			2.698	49,851	0		30,539	0	80,390	80389.64
04.01.01.07. Mechanical													
04.01.01.07.10. Piping													
04.01.01.07.10.01. Drainage System													
USR ME <15172 2200 > Steel Pipe 96"		425.00	LF	MPLUQ2	2.34	546	25,077	0.00		1037.90	0.00	1087.56	
										524,080	0	549,157	1292.13
USR ME <15172 2201 > Steel Pipe 72"		425.00	LF	MPLUQ2	3.75	340	15,621	0.00		872.05	0.00	902.99	
										440,335	0	455,956	1072.84
USR ME <15178 3001 > Coupling 96"		12.00	EA	MPLUQ16	0.03	103.09	3986.59	58.70		1070.00	0.00	5115.29	
						1,237	56,838	837		15,255	0	72,930	6077.48
USR ME <15178 3002 > Coupling 72"		12.00	EA	MPLUQ16	0.03	86.96	3362.60	49.51		888.10	0.00	4300.21	
						1,043	47,941	706		12,662	0	61,309	5109.09
USR ME <15178 3003 > Saxophone Discharge on 96" Pipe		2.00	EA	MPLUQ16	0.01	600.00	23201.95	341.64		12840.00	0.00	36383.59	
						1,200	55,132	812		30,510	0	86,455	43227.35
USR ME <15178 3004 > Saxophone Discharge on 72" Pipe		2.00	EA	MPLUQ16	0.01	545.45	21092.68	310.58		10700.00	0.00	32103.27	
						1,091	50,120	738		25,425	0	76,284	38141.89
TOTAL Drainage System		1.00	LF			5,457	250,730	3,093		1,048,268	0	1,302,090	1302090
04.01.01.07.10.02. Vacuum Priming System													
MIL ME <15172 2160 > Pipe, steel, 12" dia, sched 40, black, PE, no coupling/hanger		480.00	LF	MPLUQ2	4.38	0.69	26.52	0.00		36.18	0.00	62.69	
						329	15,122	0		20,631	0	35,753	74.49
MIL ME <15172 2110 > Pipe, steel, 4" dia, sched 40, black, PE, no coupling/hanger		40.00	LF	MPLUQ1	8.00	0.25	9.40	0.00		4.75	0.00	14.15	
						10	447	0		226	0	673	16.81
USR ME <15178 4661 > Reducer, 1" x 3/4"		4.00	EA	MPLUQ15	2.00	1.00	37.60	0.85		12.84	0.00	51.30	
						4	179	4		61	0	244	60.95
AF ME <15193 7840 > Valves, brz, 3", rcg, hi cap, 250 PSI to 25-75 PSI, thd		1.00	EA	MPLUPLUM1	1.00	1.00	40.80	0.00		1088.32	0.00	1129.12	
						1	48	0		1,293	0	1,342	1341.51
NOTE: Use for 3" x 2-1/2" Relief Valve													
MIL ME <15178 4684 > Reducer, eccentric, std wt, weld jt, 10" x 6"		4.00	EA	MPLUQ16	0.38	8.00	309.36	4.56		114.02	0.00	427.93	
						32	1,470	22		542	0	2,034	508.43
NOTE: Use for 10" x 3" reducer													

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15178 4695 > Reducer, eccentric, 18" x 10", std wt, weld jt	4.00	EA	MPLUQ16	0.20	15.00	580.05	8.54	421.15	0.00	1009.74	
					60	2,757	41	2,001	0	4,799	1199.67
USR ME <15178 4700 > Reducer, eccentric, 18" x 12", std wt, weld jt	2.00	EA	MPLUQ16	0.23	13.33	515.60	7.59	258.85	0.00	782.05	
					27	1,225	18	615	0	1,858	929.15
USR ME <15199 7061 > Plug Valve 12"	4.00	EA	MPLUQ2	0.15	20.00	773.40	0.00	3183.25	0.00	3956.65	
					80	3,675	0	15,128	0	18,804	4700.89
lubricated plug valve, flanged, 200 psi											
USR ME <15199 7062 > Plug Valve 16"	4.00	EA	MPLUQ2	0.08	40.00	1546.80	0.00	3782.45	0.00	5329.25	
					160	7,351	0	17,976	0	25,327	6331.68
MIL ME <15194 1250 > Valves, IB, lever actuator, 4", 200 lb, butterfly, wafer type	4.00	EA	MPLUQ1	0.63	3.20	120.33	0.00	109.14	0.00	229.47	
					13	572	0	519	0	1,091	272.63
USR ME <15194 1301 > Motor Oper Butterfly Valve 10" 200 lb, butterfly, wafer type	8.00	EA	MPLUQ2	0.50	6.00	232.02	0.00	1444.50	0.00	1676.52	
					48	2,205	0	13,730	0	15,935	1991.87
MIL ME <15194 6090 > Valves, iron body, swing check, 125 lb, flanged, 10"	4.00	EA	MPLUQ2	0.28	10.91	421.85	0.00	1726.47	0.00	2148.32	
					44	2,005	0	8,205	0	10,210	2552.42
MIL ME <15194 6060 > Valves, iron body, swing check, 125 lb, flanged, 4"	4.00	EA	MPLUQ1	0.38	5.33	200.55	0.00	315.09	0.00	515.64	
					21	953	0	1,497	0	2,451	612.63
USR ME <15194 6061 > Motor Operated Check valve 4"	8.00	EA	MPLUQ1	0.38	5.33	200.55	0.00	1391.00	0.00	1591.55	
					43	1,906	0	13,221	0	15,127	1890.92
USR ME <15194 3701 > Motor Operated Gate Valve 6" OS&Y, flanged, 6"	1.00	EA	MPLUQ2	0.38	8.00	309.36	0.00	1685.25	0.00	1994.61	
					8	368	0	2,002	0	2,370	2369.80
USR ME <15194 3761 > Air Operated Vent Valve 12"	6.00	EA	MPLUQ2	0.21	14.12	545.93	0.00	3183.25	0.00	3729.18	
					85	3,892	0	22,692	0	26,584	4430.64
USR ME <15194 3791 > Air Operated Vent Valve 16"	6.00	EA	MPLUQ2	0.10	30.00	1160.10	0.00	10726.75	0.00	11886.85	
					180	8,270	0	76,467	0	84,737	14122.76
USR ME <15194 3792 > Motor Operated Vent Valve 16" OS&Y, flanged, 18"	4.00	EA	MPLUQ2	0.10	30.00	1160.10	0.00	11261.75	0.00	12421.85	
					120	5,513	0	53,520	0	59,034	14758.40

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01.01.07.10.03. Cooling Water Supply System	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15194 3762 > Motor Operated Vent Valve 12"	4.00	EA	MPLUQ2	0.21	14.12	545.93	0.00	3718.25	0.00	4264.18	
					56	2,594	0	17,671	0	20,265	5066.27
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded	8.00	EA	MPLUPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60	
					3	163	0	679	0	842	105.27
USR ME <15193 3611 > Solenoid Gate Valve 1"	4.00	EA	MPLUPLUM1	0.88	1.14	46.63	0.00	445.02	0.00	491.66	
					5	222	0	2,115	0	2,337	584.14
USR ME <15194 3791 > Solenoid Gate Valve 18"	1.00	EA	MPLUQ2	0.10	30.00	1160.10	0.00	12305.00	0.00	13465.10	
					30	1,378	0	14,620	0	15,998	15997.88
MIL ME <15625 1160 > Bellows, flgd ends, 4" dia, sst, 150 lb, w/intl sleeves & ext covers	4.00	EA	MSPFQ5	0.63	3.20	67.26	0.00	548.27	0.00	615.53	
					13	320	0	2,606	0	2,925	731.31
USR ME <15197 5381 > Dry Contact Valve	4.00	EA	MPLUPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60	
					2	82	0	339	0	421	105.27
USR ME <15193 0001 > Barometric Tube 24"	1.00	EA	MPLUPLUM1	1.00	1.00	40.80	0.00	1088.32	0.00	1129.12	
					1	48	0	1,293	0	1,342	1341.51
TOTAL Vacuum Priming System	1.00	LF			1,374	62,766	84	289,648	0	352,498	352498.37
04.01.01.07.10.03. Cooling Water Supply System											
MIL ME <15188 2422 > Pipe conduit, prefab,casing,6", 1"polyurethane insul, FRP carrier	15.00	LF	MSPFQ6	2.88	1.04	22.39	0.00	78.60	0.00	101.00	
NOTE: 6" Casing & 4" Carrier					16	399	0	1,401	0	1,800	119.99
MIL ME <15188 2422 > Pipe conduit, prefab,casing,6", 1"polyurethane insul, FRP carrier	120.00	LF	MSPFQ6	2.88	1.04	22.39	0.00	78.60	0.00	101.00	
NOTE: 6" Casing & 3" Carrier					125	3,193	0	11,206	0	14,399	119.99
MIL ME <15188 2420 > Pipe conduit, prefab,casing,4", 1"polyurethane insul, FRP carrier	180.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
NOTE: 4" Casing & 2" Carrier					160	3,996	0	9,679	0	13,675	75.97
MIL ME <15188 2420 > Pipe conduit, prefab,casing,4", 1"polyurethane insul, FRP carrier	40.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
NOTE: 4" Casing & 1" Carrier					36	888	0	2,151	0	3,039	75.97
MIL ME <15188 2420 > Pipe conduit, prefab,casing,4", 1"polyurethane insul, FRP carrier	65.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
NOTE: 4" Casing & 1" Carrier					58	1,443	0	3,495	0	4,938	75.97

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST		
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
4"Casing & 3/4" Carrier												
MIL ME <15188 2420 >	Pipe conduit, prefab,casing, 4", 1"polyurethane insul, FRP carrier	200.00	LF	MSPFQ5	2.25	0.89 178	18.68 4,440	0.00	45.26 10,755	0.00	63.95 15,195	75.97
NOTE: 4" casing, 1-1/2" carrier												
MIL ME <15172 2150 >	Pipe, steel, 10" dia, sched 40, black, PE, no coupling/hanger	600.00	LF	MFLUQ2	5.00	0.60 360	23.20 16,540	0.00	25.69 18,314	0.00	48.89 34,854	58.09
MIL ME <15172 2130 >	Pipe, steel, 6" dia, sched 40, black, PE, no coupling/hanger	15.00	LF	MFLUQ2	6.75	0.44 7	17.19 306	0.00	12.19 217	0.00	29.37 523	34.90
MIL ME <15172 2090 >	Pipe, steel, 3" dia, sched 40, black, PE, no coupling/hanger	600.00	LF	MFLUQ1	8.88	0.23 135	8.47 6,041	0.00	3.19 2,273	0.00	11.66 8,314	13.86
MIL ME <15172 1360 >	Pipe, steel, 2" dia, thd, sched 40, galv, no coupling/hanger	30.00	LF	MFLUQ1	13.00	0.15 5	5.79 206	0.00	1.85 66	0.00	7.64 272	9.07
MIL ME <15172 1320 >	Pipe, steel, 3/4" dia, thd, sched 40, galv, no coupling/hanger	10.00	LF	MFLUPLUM1	14.50	0.07 1	2.81 33	0.00	0.79 9	0.00	3.61 43	4.28
USR ME <15690 9411 > Level Gauge & Transmitter												
		3.00	EA	MSPFSTP11	0.08	12.00 36	268.24 956	0.00	2942.50 10,488	0.00	3210.74 11,444	3814.68
MIL ME <15660 0980 >	Pressure rgtr, 1.5", 125#, wet/super htd, monel trim, thd, IB, prcs st	3.00	EA	MSPFSTP11	1.63	0.62 2	13.75 49	0.00	310.33 1,106	0.00	324.08 1,155	385.04
MIL ME <15197 5560 > Ball valve, steel, 150 lb, flanged, 4"												
		1.00	EA	MFLUQ1	0.38	5.33 5	200.55 238	0.00	445.42 529	0.00	645.97 767	767.47
USR ME <15197 5859 > Ball valve, steel, 150 lb, flanged, 3"												
		6.00	EA	MFLUQ1	0.57	3.50 21	131.69 939	0.00	304.95 2,174	0.00	436.64 3,113	518.77
AF ME <15197 5400 > Valves, steel, 1.5", forged, ball valve, 800 lb, threaded												
		4.00	EA	MFLUPLUM1	1.63	0.62 2	25.11 119	0.00	124.39 591	0.00	149.50 710	177.62
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded												
		7.00	EA	MFLUPLUM1	2.38	0.42 3	17.18 143	0.00	71.42 594	0.00	88.60 737	105.27
MIL ME <15197 5370 > Valves, steel, 3/4", forged, ball valve, 800 lb, threaded												
		5.00	EA	MFLUPLUM1	2.50	0.40 2	16.32 97	0.00	56.18 334	0.00	72.50 431	86.13
MIL ME <15197 5360 > Valves, steel, 1/2", forged, ball valve, 800 lb, threaded												
		2.00	EA	MFLUPLUM1	3.00	0.33 1	13.60 32	0.00	42.94 102	0.00	56.54 134	67.18
MIL ME <15194 6060 > Valves, iron body, swing check, 125 lb, flanged, 4"												
		1.00	EA	MFLUQ1	0.38	5.33 5	200.55 238	0.00	315.09 374	0.00	515.64 613	612.63

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 03/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST	
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL ME <15194 5998 > Valves, iron body, swing check, 125 lb, flanged, 1.5"	3.00	EA	MFLUPLUM1	0.75	1.33	54.41	0.00	121.98	0.00	176.39	58.79
USR ME <15194 6030 > Valves, iron body, swing check, 125 lb, flanged, 3"	9.00	EA	MFLUQ1	0.57	3.50	131.69	0.00	304.95	0.00	436.64	48.51
USR ME <15194 5990 > Valves, iron body, swing check, 125 lb, flanged, 3/4"	2.00	EA	MFLUPLUM1	1.00	1.00	40.91	0.00	64.20	0.00	105.11	52.55
MIL ME <15625 1190 > Bellows, flgd ends, 8" dia, sst, 150 lb, w/intl sleeves & ext covers	4.00	EA	MSPFQ6	0.56	5.33	114.46	0.00	769.60	0.00	884.06	221.01
USR ME <15411 0011 > Flame Arrestor	4.00	EA	MFLUPLUM1	2.25	0.44	18.14	0.00	53.50	0.00	71.64	17.91
USR ME <15176 0013 > Flexible Connection 1/2"	2.00	EA	MSPFSTP11	1.25	0.80	17.88	0.00	128.40	0.00	146.28	73.14
USR ME <15176 0012 > Flexible Connection 3/4" straight, Buna-N seat oils/gas/chem	2.00	EA	MSPFSTP11	1.25	0.80	17.88	0.00	160.50	0.00	178.38	89.19
USR ME <02681 0012 > Fuel Oil Receiving Connection 4"	2.00	EA	MSPFQ6	3.00	1.00	21.46	0.00	363.80	0.00	385.26	192.63
USR ME <02681 0013 > Fuel Oil Filter 3" inlet	4.00	EA	MSPFQ6	1.50	2.00	42.92	0.00	162.64	0.00	205.56	51.39
USR ME <15286 4301 > Fuel Oil Receiving Pump 225 gpm	1.00	EA	MFLUQ1	0.17	12.00	451.14	0.00	5350.00	0.00	5801.14	5801.14
USR ME <15286 4302 > Fuel Oil Transfer Pump 20 gpm	3.00	EA	MFLUQ1	0.22	9.00	338.46	0.00	2942.50	0.00	3280.96	1093.65
USR ME <13205 3189 > Fuel Oil Storage Tank 25,000 gal Double Walled, Fire & Ballistic Resistant	4.00	EA	MSPFQ7	0.13	32.00	701.82	0.00	53500.00	0.00	54201.82	13550.45
USR ME <15194 4560 > Globe Valve 3"	5.00	EA	MFLUQ1	0.57	3.50	131.69	0.00	631.30	0.00	762.99	152.59
MIL ME <15194 4550 > Valves, iron body, globe, OS&Y, class 125, flanged, 2"	7.00	EA	MFLUPLUM1	0.63	1.60	65.29	0.00	459.03	0.00	524.32	74.90
USR ME <15188 2419 > Pipe conduit, prefab, casing, 4", 1" polyurethane insul, FRP carrier NOTE: 4" Casing & 1/2" Carrier	15.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	4.26

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43p1										TOTAL COST UNIT COST		
		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15162 3040 > Stainless Steel Pipe 8"		18.00	LF	MPLUQ1	2.50	0.80	30.12	0.00	115.56	0.00	145.68	
						14	644	0	2,471	0	3,115	173.08
MIL ME <15199 1050 > Valves, semi-steel, 1" pipe, lubricated plug valve, threaded, 200 psi		3.00	EA	MPLUPLUM1	1.75	0.57	23.32	0.00	84.26	0.00	107.58	
						2	83	0	300	0	383	127.81
USR ME <15660 0011 > Pressure Indicator		3.00	EA	MSPFSTP11	0.50	1.99	44.36	0.00	160.50	0.00	204.86	
						6	158	0	572	0	730	243.39
M MIL ME <15174 5914 > Std 1 ftg, 150# MI, black, reducer, concentric, 4" NOTE: Use for 4" x 3" reducer		1.00	EA	MPLUQ1	1.25	1.60	60.16	0.00	179.76	0.00	239.92	
						2	71	0	214	0	285	285.05
M MIL ME <15178 4670 > Reducer, eccentric, std wt, weld jt, 6" x 4"		2.00	EA	MPLUQ16	0.63	4.80	185.62	2.73	310.30	0.00	498.65	
						10	441	6	737	0	1,185	592.44
M MIL ME <15178 4682 > Reducer, eccentric, std wt, weld jt, 10" x 8"		3.00	EA	MPLUQ16	0.38	8.00	309.36	4.56	417.30	0.00	731.21	
						24	1,103	16	1,487	0	2,606	868.76
USR ME <15178 4686 > Reducer 10" x 4"		2.00	EA	MPLUQ16	0.38	8.00	309.36	4.56	417.30	0.00	731.21	
						16	735	11	992	0	1,738	868.76
AF ME <15698 1110 > Strainers, Y type, 10" pipe size, bronze body, flanged, 150 lb NOTE: Use for self cleaning strainer		6.00	EA	MSPFQ6	0.25	12.00	257.54	0.00	5437.42	0.00	5694.95	
						72	1,836	0	38,761	0	40,597	6766.17
MIL ME <15698 1100 > Strainers, Y type, 6" pipe size, bronze body, flanged, 150 lb NOTE: Use for self cleaning strainer		4.00	EA	MSPFQ6	0.38	8.00	171.69	0.00	2686.13	0.00	2857.82	
						32	816	0	12,766	0	13,581	3395.37
USR ME <15660 0011 > Pressure Indicator		20.00	EA	MSPFSTP11	0.50	1.99	44.36	0.00	160.50	0.00	204.86	
						40	1,054	0	3,814	0	4,868	243.39
USR ME <15194 3513 > Solenoid Gate Valve 2"		10.00	EA	MPLUPLUM1	0.50	1.99	81.30	0.00	963.00	0.00	1044.30	
						20	966	0	11,441	0	12,407	1240.73
USR ME <15194 3509 > Solenoid Gate Valve 3"		4.00	EA	MPLUPLUM1	0.33	3.01	122.72	0.00	1284.00	0.00	1406.72	
						12	583	0	6,102	0	6,685	1671.32
MIL ME <15194 6090 > Valves, iron body, swing check, 125 lb, flanged, 10"		3.00	EA	MPLUQ2	0.28	10.91	421.85	0.00	1726.47	0.00	2148.32	
						33	1,504	0	6,154	0	7,657	2552.42
MIL ME <15194 6070 > Valves, iron body, swing check, 125 lb, flanged, 6"		2.00	EA	MPLUQ2	0.38	8.00	309.36	0.00	539.28	0.00	848.64	
						16	735	0	1,281	0	2,017	1008.27

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15193 0001 >	Combination Air Valve	5.00	EA	MFLUPLUM1	0.99	1.01	41.22	0.00	321.00	0.00	362.22	
						5	245	0	1,907	0	2,152	430.35
USR ME <15193 7900 >	Pressure Reducing Valve 6"	2.00	EA	MFLUPLUM1	0.33	3.00	122.42	0.00	3210.00	0.00	3332.42	
						6	291	0	7,628	0	7,919	3959.25
USR ME <15193 7950 >	Pressure Reducing Valve 10"	3.00	EA	MFLUPLUM1	0.20	5.00	204.02	0.00	4280.00	0.00	4484.02	
						15	727	0	15,255	0	15,982	5327.47
MIL ME <15197 5570 >	Ball valve, steel, 150 lb, flanged, 6"	4.00	EA	MFLUQ2	0.38	8.00	309.36	0.00	1069.53	0.00	1378.89	
						32	1,470	0	5,083	0	6,553	1638.26
CIV ME <15194 0860 >	Valves, IB, gear operated, 10", butterfly, 200 lb, 200 PSI, lug type	12.00	EA	MFLUQ2	0.50	6.00	232.02	0.00	509.59	0.00	741.61	
						72	3,308	0	7,265	0	10,573	881.10
CIV ME <15194 0840 >	Valves, IB, gear operated, 6", butterfly, 200 lb, 200 PSI, lug type	7.00	EA	MFLUQ2	0.63	4.80	185.62	0.00	304.15	0.00	489.76	
						34	1,544	0	2,530	0	4,073	581.89
USR ME <15197 0010 >	Needle Valve 3" flanged, 4"	4.00	EA	MFLUQ1	1.00	2.00	75.25	0.00	508.25	0.00	583.50	
						8	358	0	2,415	0	2,773	693.26
USR ME <15199 7010 >	Motor Operated Plug Valve 4"	4.00	EA	MFLUQ1	0.20	10.01	376.22	0.00	1605.00	0.00	1981.22	
						40	1,788	0	7,628	0	9,416	2353.88
TOTAL Cooling Water Supply System		1.00	LF			1,949	70,162	34	502,219	0	572,414	572413.82
04.01.01.07.10.04. Waste Fuel & Engine Oil System												
MIL ME <15188 2422 >	Pipe conduit, prefab, casing, 6", 1"polyurethane insul, FRP carrier	10.00	LF	MSPFQ6	2.88	1.04	22.39	0.00	78.60	0.00	101.00	
						10	266	0	934	0	1,200	119.99
NOTE: 6" Casing & 4" Carrier												
MIL ME <15188 2422 >	Pipe conduit, prefab, casing, 6", 1"polyurethane insul, FRP carrier	400.00	LF	MSPFQ6	2.88	1.04	22.39	0.00	78.60	0.00	101.00	
						417	10,643	0	37,355	0	47,998	119.99
NOTE: 6" Casing & 3" Carrier												
MIL ME <15188 2420 >	Pipe conduit, prefab, casing, 4", 1"polyurethane insul, FRP carrier	250.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
						222	5,550	0	13,444	0	18,993	75.97
NOTE: 4" Casing & 2" Carrier												
MIL ME <15188 2420 >	Pipe conduit, prefab, casing, 4", 1"polyurethane insul, FRP carrier	120.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
						107	2,664	0	6,453	0	9,117	75.97
NOTE: 4" Casing & 1" Carrier												

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATOIA UPB ID: UP01EA



Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL ME <15188 2420 >	Pipe conduit, prefab, casing, 4", 1" polyurethane insul, FRP carrier	30.00	LF	MSPFQ5	2.25	0.89	18.68	0.00	45.26	0.00	63.95	
	4"Casing & 3/4" Carrier					27	666		1,613	0	2,279	75.97
USR ME <15188 0011 >	Pipe Conduit, Reducer 2" x 1.5"	8.00	EA	MSPFQ6	1.37	2.20	47.12	0.00	1498.00	0.00	1545.12	
						18	448		14,238	0	14,686	1835.75
USR ME <15188 0012 >	Pipe Conduit, Reducer 1" x 1/2"	4.00	EA	MSPFQ6	1.43	2.10	45.07	0.00	1364.25	0.00	1409.32	
						8	214		6,483	0	6,698	1674.41
USR ME <15188 0013 >	Pipe Conduit, Reducer 4" x 3"	3.00	EA	MSPFQ6	1.25	2.40	51.51	0.00	1578.25	0.00	1629.76	
						7	184		5,625	0	5,809	1936.31
USR ME <15190 5411 >	Ball valve, steel, 150 lb, flanged, 3"	8.00	EA	MFLUQ1	1.00	2.00	75.25	0.00	240.75	0.00	316.00	
						16	715		2,288	0	3,004	375.44
MIL ME <15197 5410 >	Valves, steel, 2", forged, ball valve, 800 lb, threaded	7.00	EA	MFLUPLUM1	1.38	0.73	29.68	0.00	164.51	0.00	194.19	
						5	247		1,368	0	1,615	230.72
MIL ME <15197 5370 >	Valves, steel, 3/4", forged, ball valve, 800 lb, threaded	2.00	EA	MFLUPLUM1	2.50	0.40	16.32	0.00	56.18	0.00	72.50	
						1	39		133	0	172	86.13
MIL ME <15194 6660 >	Valves, IB, for 125 or 150 lb flg, 3", silent chk, compact wfr type	2.00	EA	MFLUQ1	1.00	2.00	75.21	0.00	176.34	0.00	251.54	
						4	179		419	0	598	298.86
MIL ME <15194 6640 >	Valves, IB, for 125 or 150 lb flg, 2", silent chk, compact wfr type	4.00	EA	MFLUPLUM1	1.13	0.89	36.27	0.00	149.80	0.00	186.07	
						4	172		712	0	884	221.07
MIL ME <15199 1050 >	Valves, semi-steel, 1" pipe, lubricated plug valve, threaded, 200 psi	6.00	EA	MFLUPLUM1	1.75	0.57	23.32	0.00	84.26	0.00	107.58	
						3	166		601	0	767	127.81
AF ME <15194 3504 >	Gate valve, iron body, OS&Y, 225 lb, threaded, 3/4"	4.00	EA	MFLUPLUM1	2.25	0.44	18.14	0.00	412.63	0.00	430.77	
						2	86		1,961	0	2,047	511.80
MIL ME <15193 5125 >	Valves, bronze, 1" dia, globe, class 300, rising stem, threaded	4.00	EA	MFLUPLUM1	2.38	0.42	17.18	0.00	107.14	0.00	124.32	
						2	82		509	0	591	147.70
USR ME <15660 0011 >	Pressure Indicator	3.00	EA	MSPFSTPI1	0.50	1.99	44.36	0.00	160.50	0.00	204.86	
						6	158		572	0	730	243.39
USR ME <15690 9411 >	Level Gauge & Transmitter	4.00	EA	MSPFSTPI1	0.08	12.00	268.24	0.00	2942.50	0.00	3210.74	
						48	1,275		13,984	0	15,259	3814.68
USR ME <15411 0011 >	Flame Arrestor	4.00	EA	MFLUPLUM1	2.25	0.44	18.14	0.00	53.50	0.00	71.64	
						2	86		254	0	340	85.11

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <02681 0011 > Pump Truck Piping Connection 4"	4.00	EA	MSPFQ6	3.00	1.00	21.46	0.00	363.80	0.00	385.26	
					4	102	0	1,729	0	1,831	457.73
USR ME <13205 0011 > Waste Lube/FO Collection Tank, 1200 gal, Doubled Walled & Fire Resistant	2.00	EA	MSPFQ7	0.50	8.00	175.35	0.00	10700.00	0.00	10875.35	
					16	417	0	25,425	0	25,842	12921.00
USR ME <13205 0012 > Waste Lube/Fuel Oil Tank, 1200 gal, Double Walled, Fire & Ballistic Resistant	2.00	EA	MSPFQ7	0.50	8.00	175.46	0.00	10700.00	0.00	10875.46	
					16	417	0	25,425	0	25,842	12921.13
USR ME <15188 0014 > Pipe Conduit, Reducer 2" x 1"	8.00	EA	MSPFQ6	1.36	2.20	47.22	0.00	1391.00	0.00	1438.22	
					18	449	0	13,221	0	13,670	1708.74
USR ME <13205 0013 > Fuel Oil Day Tank, 775 gal Double Walled, Fire & Ballistic Resistant	2.00	EA	MSPFQ7	0.50	8.00	175.46	0.00	5350.00	0.00	5525.46	
					16	417	0	12,713	0	13,130	6564.79
USR ME <13205 0014 > Fuel Oil Day Tank, 425 gal	2.00	EA	MSPFQ7	0.50	8.00	175.46	0.00	4280.00	0.00	4455.46	
					16	417	0	10,170	0	10,587	5293.53
USR ME <15162 3040 > Silencer 8" Stainless Steel 304L	2.00	EA	MFLUQ1	0.20	10.01	376.40	0.00	1605.00	0.00	1981.40	
					20	894	0	3,814	0	4,708	2354.11
USR ME <15194 3512 > Solenoid Gate Valve 1"	6.00	EA	MFLUPLUM1	1.00	1.00	40.80	0.00	909.50	0.00	950.30	
					6	291	0	6,483	0	6,774	1129.06
USR ME <15193 7822 > Three Way Valve 3"	2.00	EA	MFLUPLUM1	0.33	3.00	122.42	0.00	1070.00	0.00	1192.42	
					6	291	0	2,543	0	2,833	1416.72
USR ME <15194 3513 > Solenoid Gate Valve 2"	3.00	EA	MFLUPLUM1	0.50	1.99	81.30	0.00	963.00	0.00	1044.30	
					6	290	0	3,432	0	3,722	1240.73
TOTAL Waste Fuel & Engine Oil System	1.00	LF			1,032	27,823	0	213,903	0	241,726	241726.47
04.01.01.07.10.05. Lube Oil Supply System											
USR ME <15172 0001 > Perma Pipe 6" Casing, 4" Inner	10.00	LF	MFLUQ2	2.48	1.21	46.87	0.00	111.28	0.00	158.15	
					12	557	0	1,322	0	1,879	187.90
USR ME <15172 0002 > Perma Pipe 6" Casing, 3" Inner	30.00	LF	MFLUQ2	2.86	1.05	40.60	0.00	99.51	0.00	140.11	
					32	1,447	0	3,547	0	4,994	166.47
USR ME <15172 0003 > Perma Pipe 4" Casing, 2" Inner	320.00	LF	MFLUQ2	3.66	0.82	31.71	0.00	85.60	0.00	117.31	
					262	12,056	0	32,544	0	44,600	139.38
USR ME <15174 5912 > Perma Pipe Reducer 2" x 1-1/2"	4.00	EA	MFLUQ1	0.29	6.99	262.86	0.00	1605.00	0.00	1867.86	
					28	1,249	0	7,628	0	8,877	2219.21

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST		
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15174 5913 > Perma Pipe Reducer 4" x 3"		2.00	EA	MFLUQ1	0.22	9.00	338.46	0.00	1819.00	0.00	2157.46	
						18	804		4,322	0	5,127	2563.28
USR ME <15660 0011 > Pressure Indicator		9.00	EA	MSFFSTPI1	0.50	1.99	44.36	0.00	160.50	0.00	204.86	
						18	474		1,716	0	2,191	243.39
USR ME <15690 9411 > Level Gauge & Transmitter		1.00	EA	MSFFSTPI1	0.08	12.00	268.24	0.00	2942.50	0.00	3210.74	
						12	319		3,496	0	3,815	3814.68
USR ME <15197 5559 > Ball Valve 3"		3.00	EA	MFLUPLUM1	0.29	3.49	142.27	0.00	304.95	0.00	447.22	
						10	507		1,087	0	1,594	531.35
MIL ME <15197 5410 > Valves, steel, 2", forged, ball valve, 800 lb, threaded		9.00	EA	MFLUPLUM1	1.38	0.73	29.68	0.00	164.51	0.00	194.19	
						7	317		1,759	0	2,076	230.72
MIL ME <15194 6660 > Valves, IB, for 125 or 150 lb flg, 3", silent chk, compact wfr type		2.00	EA	MFLUQ1	1.00	2.00	75.21	0.00	176.34	0.00	251.54	
						4	179		419	0	598	298.86
MIL ME <15194 6640 > Valves, IB, for 125 or 150 lb flg, 2", silent chk, compact wfr type		8.00	EA	MFLUPLUM1	1.13	0.89	36.27	0.00	149.80	0.00	186.07	
						7	345		1,424	0	1,769	221.07
MIL ME <15199 1050 > Valves, semi-steel, 1" pipe, lubricated plug valve, threaded, 200 psi		1.00	EA	MFLUPLUM1	1.75	0.57	23.32	0.00	84.26	0.00	107.58	
						1	28		100	0	128	127.81
MIL ME <15194 4550 > Valves, iron body, globe, OS&Y, class 125, flanged, 2"		2.00	EA	MFLUPLUM1	0.63	1.60	65.29	0.00	459.03	0.00	524.32	
						3	155		1,091	0	1,246	622.94
AF ME <15194 3505 > Gate valve, iron body, OS&Y, 225 lb, threaded, 1"		4.00	EA	MFLUPLUM1	2.00	0.50	20.40	0.00	468.75	0.00	489.15	
						2	97		2,228	0	2,325	581.16
USR ME <15194 3511 > Solenoid Gate Valve 1-1/2"		4.00	EA	MFLUPLUM1	1.01	0.99	40.50	0.00	936.25	0.00	976.75	
						4	192		4,449	0	4,642	1160.48
MIL ME <15605 0040 > Air control, separator, w/strainer, 2" dia		4.00	EA	MSFFQ5	0.75	2.67	56.05	0.00	552.76	0.00	608.81	
NOTE: Use for moisture separator w/2" inlet						11	266		2,627	0	2,893	723.33
USR ME <15193 7821 > Three Way Valve 2"		2.00	EA	MFLUPLUM1	0.50	1.99	81.30	0.00	856.00	0.00	937.30	
						4	193		2,034	0	2,227	1113.61
USR ME <13205 3090 > Lube Oil Storage Tank 1200 gal		1.00	EA	MSFFQ7	0.67	6.00	131.53	0.00	2782.00	0.00	2913.53	
						6	156		3,305	0	3,462	3461.56
TOTAL Lube Oil Supply System		1.00	LF			440	19,342	0	75,099	0	94,441	94441.01

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

TIME 09:25:13  
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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.07.10.06. Lubricating Water Supply System											
MIL ME <15172 0580 > Pipe, steel, no coupling/hanger, 1" dia, sched 40, black, threaded	40.00	LF	MFLUPLUM1	14.25	0.07	2.86	0.00	0.74	0.00	3.60	4.28
MIL ME <15172 0610 > Pipe, steel, no coupling/hanger, 2" dia, sched 40, black, threaded	30.00	LF	MFLUQ1	14.13	0.14	5.32	0.00	1.63	0.00	6.95	8.26
MIL ME <15172 0630 > Pipe, steel, no coupling/hanger, 4" dia, sched 40, black, threaded	90.00	LF	MFLUQ1	8.00	0.25	9.40	0.00	4.79	0.00	14.19	16.86
MIL ME <15194 5994 > Valves, iron body, swing check, 125 lb, flanged, 1"	2.00	EA	MFLUPLUM1	0.88	1.14	46.63	0.00	83.59	0.00	130.22	154.72
MIL ME <15194 6060 > Valves, iron body, swing check, 125 lb, flanged, 4"	2.00	EA	MFLUQ1	0.38	5.33	200.55	0.00	315.09	0.00	515.64	612.63
CIV ME <15194 0820 > Valves, IB, gear operated, 4", butterfly, 200 lb, 200 PSI, lug type	8.00	EA	MFLUQ1	0.63	3.20	120.33	0.00	220.69	0.00	341.02	405.16
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded	6.00	EA	MFLUPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60	105.27
MIL ME <15197 5360 > Valves, steel, 1/2", forged, ball valve, 800 lb, threaded	2.00	EA	MFLUPLUM1	3.00	0.33	13.60	0.00	42.94	0.00	56.54	67.18
USR ME <15197 5561 > Ball valve, steel, 150 lb, flanged, 2-1/2"	3.00	EA	MFLUQ1	1.00	2.00	75.25	0.00	240.75	0.00	316.00	375.44
MIL ME <15193 6480 > Valves, bronze, 2", relief, pressure, water, ASME, threaded NOTE: Use for solenoid valve	4.00	EA	MFLUPLUM1	2.00	0.50	20.40	0.00	318.33	0.00	338.73	402.44
MIL ME <15698 1060 > Strainers, Y type, 4" pipe size, bronze body, flanged, 150 lb	4.00	EA	MSPFQ5	0.38	5.33	112.11	0.00	1008.54	0.00	1120.64	1331.44
MIL ME <15174 5880 > Std ftg, 150# MI, black, reducer, concentric, 1"	2.00	EA	MFLUPLUM1	1.88	0.53	21.76	0.00	4.64	0.00	26.41	31.37
USR ME <15690 9411 > Level Transmitter	1.00	EA	MSPFSTP11	0.10	10.00	223.44	0.00	2675.00	0.00	2898.44	3443.64
USR ME <15660 0011 > Pressure Indicator	10.00	EA	MSPFSTP11	0.50	1.99	44.36	0.00	160.50	0.00	204.86	243.39

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

TIME 09:25:13  
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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER			
MIL ME <13205 3060 > Tanks, stl, 550 gal, abv gnd, w/, cradles, ftg, no fdn/bmp/piping NOTE: Use for 500 gal tank	1.00	EA	MSPFQ5	0.34	5.93	124.56	0.00	1222.66	0.00	1347.22	1,601	1600.63
USR ME <15193 0001 > Combination Air Valve	2.00	EA	MEUPLUM1	0.99	1.01	41.22	0.00	321.00	0.00	362.22	861	430.35
TOTAL Lubricating Water Supply System	1.00	LF			140	5,205	0	18,737	0	23,942	23942.16	
04.01.01.07.10.07. Potable/Service Water Supply Sys												
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded	16.00	EA	MEUPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60	1,684	105.27
MIL ME <15197 5370 > Valves, steel, 3/4", forged, ball valve, 800 lb, threaded	4.00	EA	MEUPLUM1	2.50	0.40	16.32	0.00	56.18	0.00	72.50	345	86.13
MIL ME <15197 5360 > Valves, steel, 1/2", forged, ball valve, 800 lb, threaded	8.00	EA	MEUPLUM1	3.00	0.33	13.60	0.00	42.94	0.00	56.54	537	67.18
MIL ME <15193 1850 > Valves, bronze, 1/2", chk, swing, CL 150, regrounding disc, thd	2.00	EA	MEUPLUM1	3.00	0.33	13.60	0.00	24.08	0.00	37.68	90	44.76
MIL ME <15193 1890 > Valves, bronze, 1.5", chk, swing, CL 150, regrounding disc, thd	2.00	EA	MEUPLUM1	1.63	0.62	25.11	0.00	78.65	0.00	103.76	247	123.27
MIL ME <15142 2200 > Copper Pipe Type K 1" dia	200.00	LF	MEUPLUM1	6.63	0.15	6.16	0.00	1.39	0.00	7.55	1,794	8.97
MIL ME <15143 0749 > Coupling, copper, wrought, reducing, concentric, 1.5" NOTE: Use for reducer 1-1/2" x 1"	1.00	EA	MEUPLUM1	2.00	0.50	20.40	0.00	1.52	0.00	21.92	26	26.04
MIL ME <15143 0747 > Coupling, copper, wrought, reducing, concentric, 1" NOTE: Use for reducer 1" x 3/4"	8.00	EA	MEUPLUM1	2.44	0.41	16.74	0.00	1.21	0.00	17.95	171	21.33
USR ME <15690 9411 > Level Transmitter	1.00	EA	MSPFSTP1	0.10	10.00	223.44	0.00	2675.00	0.00	2898.44	3,444	3443.64
USR ME <13205 3039 > Storage Tank 200 gal	1.00	EA	MSPFQ5	0.63	3.20	67.26	0.00	252.76	0.00	320.02	380	380.21
TOTAL Potable/Service Water Supply Sys	1.00	LF			60	2,618	0	6,099	0	8,717	8716.88	

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATOIA UPB ID: UPO1EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.07.10.08. Compressed Air System											
B MIL ME <15194 3507 > Solenoid Gate Valve 2"	4.00	EA	MEPLUPLUM1	0.67	1.49	60.97	0.00	963.00	0.00	1023.97	1216.58
					6	290	0	4,577	0	4,866	
MIL ME <15172 0610 > Pipe, steel, no coupling/hanger, 2" dia, sched 40, black, threaded	500.00	LF	MEPLUQ1	14.13	0.14	5.32	0.00	1.63	0.00	6.95	8.26
					71	3,163	0	966	0	4,129	
MIL ME <15172 0600 > Pipe, steel, no coupling/hanger, 1-1/2" dia, sched 40, black, threaded	230.00	LF	MEPLUQ1	19.63	0.10	3.83	0.00	1.21	0.00	5.04	5.99
					23	1,047	0	330	0	1,378	
RSM ME <15194 5500 > Valves, iron body, swing check, 125 lb, threaded, 2"	6.00	EA	MEPLUPLUM1	1.38	0.73	29.68	0.00	362.78	0.00	392.46	466.28
					4	212	0	2,586	0	2,798	
MIL ME <15197 5410 > Valves, steel, 2", forged, ball valve, 800 lb, threaded	11.00	EA	MEPLUPLUM1	1.38	0.73	29.68	0.00	164.51	0.00	194.19	230.72
					8	388	0	2,150	0	2,538	
AF ME <15197 5400 > Valves, steel, 1.5", forged, ball valve, 800 lb, threaded	7.00	EA	MEPLUPLUM1	1.63	0.62	25.11	0.00	124.39	0.00	149.50	177.62
					4	209	0	1,034	0	1,243	
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded	5.00	EA	MEPLUPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60	105.27
					2	102	0	424	0	526	
MIL ME <15194 3507 > Valves, gate, iron body, OS&Y, 125 lb, threaded, 2"	3.00	EA	MEPLUPLUM1	1.38	0.73	29.68	0.00	508.34	0.00	538.01	639.21
					2	106	0	1,812	0	1,918	
AF ME <15194 3505 > Gate valve, iron body, OS&Y, 225 lb, threaded, 1"	4.00	EA	MEPLUPLUM1	2.00	0.50	20.40	0.00	468.75	0.00	489.15	581.16
					2	97	0	2,228	0	2,325	
USR ME <15194 3503 > Gate valve 1/2"	4.00	EA	MEPLUPLUM1	2.48	0.40	16.49	0.00	374.50	0.00	390.99	464.53
					2	78	0	1,780	0	1,858	
MIL ME <15193 4990 > Valves, bronze, 1.5", globe, class 150, rising stem, threaded	8.00	EA	MEPLUPLUM1	1.63	0.62	25.11	0.00	136.43	0.00	161.54	191.92
					5	239	0	1,297	0	1,535	
USR ME <15193 7811 > Pressure Reducing Valve 1-1/2"	4.00	EA	MEPLUPLUM1	1.63	0.62	25.11	0.00	484.07	0.00	509.18	604.95
					2	119	0	2,300	0	2,420	
RSM ME <15193 5670 > Valves, bronze, 1.5", relief, chd, pressure & temp, self-close, ASME	4.00	EA	MEPLUPLUM1	2.25	0.44	18.14	0.00	387.25	0.00	405.39	481.64
					2	86	0	1,840	0	1,927	
MIL ME <15605 0040 > Air control, separator, w/strainer, 2" dia NOTE: Use for moisture separator w/2" inlet	1.00	EA	MSFPF05	0.75	2.67	56.05	0.00	552.76	0.00	608.81	723.33
					3	67	0	657	0	723	
USR ME <15660 0011 > Pressure Indicator	6.00	EA	MSFPF011	0.50	1.99	44.36	0.00	160.50	0.00	204.86	243.39
					12	316	0	1,144	0	1,460	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

TIME 09:25:13  
DETAIL PAGE 49

04.01. Pump Station 1 - C43P1											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR ME <15176 0011 > Flexible Connection	2.00	EA	MSPFSTP11	0.63	1.60	35.75	0.00	278.20	0.00	313.95	
					3	85	0	661	0	746	373.00
	TOTAL Compressed Air System										32390.05
TOTAL Piping	1.00	LF			152	6,603	0	25,787	0	32,390	
	1.00	LF			10,604	445,248	3,211	2,179,760	0	2,628,219	2628219
TOTAL Mechanical	1.00	EA			10,604	445,248	3,211	2,179,760	0	2,628,219	2628219
04.01.01.08. Plumbing											
04.01.01.08.01. Plumbing Fixtures											
04.01.01.08.01.01. Waterclosets											
RSM PL <15280 1000 > Water clo, tank, 1 piece, vit china, seat, supply w/stop, fl mtd	2.00	EA	MPLUQ1	0.66	3.02	113.43	0.00	515.13	0.00	628.56	
					6	270	0	1,224	0	1,494	746.79
	TOTAL Waterclosets										1493.59
04.01.01.08.01.03. Lavatories											
AF PL <15236 6120 > Lavatory, w/trim, single bowl w/backsplsh, 24"x20", wall hung, vit china	2.00	EA	MPLUQ1	0.88	2.29	85.95	0.00	252.97	0.00	338.92	
					5	204	0	601	0	805	402.67
	TOTAL Lavatories										805.34
04.01.01.08.01.05. Showers/Tubs											
MIL PL <15248 3100 > Showers, stall, 36" x 36" sq, fbgs, one PC, w/ 3 wall, w/door & trim	1.00	EA	MPLUQ1	0.30	6.67	250.69	0.00	356.33	0.00	607.02	
					7	298	0	423	0	721	721.20
	TOTAL Showers/Tubs										1143.65
MIL PL <15248 4200 > Showers, stall, rough-in, supply, waste and vent for above showers	1.00	EA	MPLUQ1	0.26	7.81	293.77	0.00	61.80	0.00	355.57	
					8	349	0	73	0	422	422.46
	TOTAL Showers/Tubs										1143.65

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.08.01.06. Drinking Fountains & Coolers	1.00	EA			0	0	0	0	0	0	0.00
TOTAL Drinking Fountains & Coolers											
04.01.01.08.01.08. Service Sink											
MIL PL <15252 8980 > Sinks, w/faucets & dr, svce, for rgn-in, sply, w & vent, w/ svce	1.00	EA	MFLUQ1	0.16	12.27	461.38	0.00	262.28	0.00	723.66	
					12	548	0	312	0	860	859.78
MIL PL <15252 6650 > Sinks, w/faucets & drain, polthn on C1,28"x28", corner, floor, service	1.00	EA	MFLUQ1	0.55	3.64	136.74	0.00	506.55	0.00	643.29	
					4	162	0	602	0	764	764.29
TOTAL Service Sink					16	711	0	913	0	1,624	
04.01.01.08.01.09. Kitchen Sink											
MIL PL <15252 3100 > Kitchen sink, w/ faucets & dr, SS, self rimming, 25" x 22" sgl bowl	2.00	EA	MFLUQ1	0.70	2.86	107.44	0.00	330.61	0.00	438.05	
					6	255	0	786	0	1,041	520.44
MIL PL <15252 4980 > Sinks, w/faucets&dr, kit, st, for rgn-in, sply, w&vent, cntr top sks	2.00	EA	MFLUQ1	0.27	7.46	280.62	0.00	67.28	0.00	347.90	
					15	667	0	160	0	827	413.34
TOTAL Kitchen Sink	1.00	EA			21	922	0	945	0	1,868	1867.56
TOTAL Plumbing Fixtures	1.00	EA			62	2,753	0	4,181	0	6,934	6934.22
04.01.01.08.02. Domestic Water Supply											
04.01.01.08.02.01. Pipes and Fittings											
M MIL PL <15142 2200 > Pipe copper type L, no coupling no hanger 1" dia	50.00	LF	MFLUPLUM1	6.63	0.15	6.16	0.00	5.35	0.00	11.51	
					8	366	0	318	0	684	13.67
M MIL PL <15142 2260 > Pipe copper type L, no coupling no hanger 2" dia	150.00	LF	MFLUPLUM1	3.88	0.26	10.53	0.00	7.49	0.00	18.02	
					39	1,877	0	1,335	0	3,211	21.41
TOTAL Pipes and Fittings	1.00	EA			46	2,243	0	1,653	0	3,895	3895.15
TOTAL Domestic Water Supply	1.00	EA			46	2,243	0	1,653	0	3,895	3895.15

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



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30% Submittal  
04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.01.08.03. Sanitary Waste and Vent System												
04.01.01.08.03.01. Waste Pipe and Fittings												
MIL PL <15132 4160 > Pipe CI soil, no hub, 4" dia, no cplg, no ngr/jt, service weight	150.00	LF	MFLUQ1	25.00	0.08	3.01	0.00	0.00	5.57	0.00	8.58	10.20
					12	536	0	0	993	0	1,530	
MIL PL <15132 4120 > Pipe CI soil, no hub, 2" dia, no cplg, no ngr/jt, service weight	50.00	LF	MFLUQ1	32.50	0.06	2.31	0.00	0.00	3.10	0.00	5.42	6.44
					3	137	0	0	184	0	322	
TOTAL Waste Pipe and Fittings	1.00	EA			15	674	0	0	1,178	0	1,851	1851.40
04.01.01.08.03.03. Floor Drains												
MIL PL <15107 2258 > Drains, fl, funnel type, 4" dia CI, bronze top, 4" pipe	3.00	EA	MFLUQ1	1.25	1.60	60.16	0.00	0.00	443.04	0.00	503.21	597.86
					5	214	0	0	1,579	0	1,794	
TOTAL Floor Drains	1.00	EA			5	214	0	0	1,579	0	1,794	1793.59
TOTAL Sanitary Waste and Vent System												
	1.00	EA			20	888	0	0	2,757	0	3,645	3644.98
04.01.01.08.05. Plumbing Equipment												
04.01.01.08.05.01. Domestic Water Equipment												
MIL PL <15310 1080 > Water htr, resi, double element, 40 gal, elec, glass lined tank, 5 yr	1.00	EA	MFLUPLUM1	0.25	4.00	163.22	0.00	0.00	283.12	0.00	446.34	530.30
					4	194	0	0	336	0	530	
TOTAL Domestic Water Equipment	1.00	EA			4	194	0	0	336	0	530	530.30
TOTAL Plumbing Equipment												
	1.00	EA			4	194	0	0	336	0	530	530.30
TOTAL Plumbing												
	1.00	EA			132	6,078	0	0	8,927	0	15,005	15004.65
04.01.01.09. HVAC												
04.01.01.09.04. Distribution Systems												
04.01.01.09.04.01. Air Distribution, Cooling and Heating												
USR HV <15728 0001 > Roll Filter Housing & Media	8.00	EA	MSPFQ7	0.06	68.38	1499.62	0.00	0.00	6687.50	0.00	8187.12	10262.56
					547	15,038	0	0	67,062	0	82,100	
USR HV <15728 0002 > Louver Hurricane Type 90"x48"	64.00	EA	MSPFQ7	0.18	22.79	499.87	0.00	0.00	3156.50	0.00	3656.37	4583.27
					1,459	40,102	0	0	253,227	0	293,329	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR HV <15728 0003 > Louver 78"x78"		8.00	EA	MSPFQ7	0.18	22.79 182	499.87 5,013	0.00	1498.00 15,022	0.00	1997.87 20,035	2504.34
USR HV <15728 0004 > Louver 54"x54"		4.00	EA	MSPFQ7	0.20	20.51 82	449.89 2,256	0.00	856.00 4,292	0.00	1305.89 6,548	1636.93
USR HV <15728 0005 > Louver 60"x60"		2.00	EA	MSPFQ7	0.18	22.79 46	499.87 1,253	0.00	963.00 2,414	0.00	1462.87 3,667	1833.71
USR HV <15728 0003 > Fans		1.00	JB	MSPFQ7	0.01	512.82 513	11247.17 14,098	0.00	80785.00 101,264	0.00	92032.17 115,362	115362.33
USR HV <15728 0003 > Air Handling/Condensing Unit		1.00	JB	MSPFQ7	0.11	36.46 36	799.71 1,002	0.00	4280.00 5,365	0.00	5079.71 6,367	6367.41
USR HV <15728 0003 > Supply Fan Plenum		1.00	JB	MSPFQ7	0.02	266.67 267	5848.53 7,331	0.00	41807.04 52,405	0.00	47655.57 59,736	59736.26
USR HV <15728 0003 > Exhaust Fan Plenum		1.00	JB	MSPFQ7	0.20	20.51 21	449.89 564	0.00	3389.76 4,249	0.00	3839.65 4,813	4813.00
USR HV <15728 0003 > Door Plenum		1.00	JB	MSPFQ7	0.73	5.47 5	119.96 150	0.00	642.00 805	0.00	761.96 955	955.12
M RSM HV <15731 0560 > Duct, fab rect, 1000 - 2000 LB, incl fctg, galv stl		671.00	LB	MSHMQ10	33.13	0.09 61	1.88 1,578	0.00	3.75 3,150	0.00	5.62 4,728	7.05
USR HV <15750 0001 > Grilles, Registers, & Diffusers cmpr,al,air sply,adj curved face bars		1.00	JB	MSHMSHEE1	0.14	6.96 7	150.06 188	0.00	786.45 986	0.00	936.51 1,174	1173.91
USR HV <15731 0001 > Missile Barrier		469.00	SF	MSHMQ10	2.07	1.45 679	30.00 17,637	0.00	80.25 47,178	0.00	110.25 64,815	138.20
TOTAL Air Distribution, Cooling and		1.00	MCF			3,905	106,211	0	557,419	0	663,630	663630.09
TOTAL Distribution Systems		1.00	MBH			3,905	106,211	0	557,419	0	663,630	663630.09
04.01.01.09.06. Controls and Instrumentation												
04.01.01.09.06.90. Controls												
USR HV <15743 0001 > SCADA Console		1.00	LS	N/A	0.00	0.00	10000.00	0.00	53500.00	0.00	63500.00	
USR HV <15743 0001 > SCADA Console						0	12,535	0	67,062	0	79,597	79597.25
USR HV <15743 0001 > PV 1500		6.00	EA	N/A	0.00	0.00	1600.00	0.00	8560.00	0.00	10160.00	
						0	12,034	0	64,380	0	76,413	12735.56

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER			
USR HV <15743 0001 > UPS Note: Use PLC & SCADA System Network	8.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	6,368	795.97
USR HV <15743 0001 > Ethernet Switch Note: Use for PLC & SCADA System Network	8.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	6,368	795.97
USR HV <15743 0001 > Control Logix Plc	6.00	EA	N/A	0.00	0.00	2000.00	0.00	10700.00	0.00	12700.00	95,517	15919.45
USR HV <15743 0001 > Scada Node No. 1	1.00	EA	N/A	0.00	0.00	1000.00	0.00	5350.00	0.00	6350.00	7,960	7959.72
USR HV <15743 0001 > Scada Node No. 2 Structure	1.00	EA	N/A	0.00	0.00	1000.00	0.00	5350.00	0.00	6350.00	7,960	7959.72
USR HV <15743 0001 > Alarm Printer Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	796	795.97
B MIL HV <02230 4500 > Color Ink Jet Report Printer deep, 12" wide, cable, sand bedding	1.00	EA	COETR23	0.51	6.97	299.94	277.99	1605.00	0.00	2182.93	2,736	2736.31
USR HV <15743 0001 > Plc/Moscad Server	1.00	EA	EELER18	0.06	54.37	1500.09	0.00	8025.00	0.00	9525.09	11,940	11939.71
USR HV <15743 0001 > Loggernet Server	1.00	EA	N/A	0.00	0.00	1500.00	0.00	8025.00	0.00	9525.00	11,940	11939.59
USR HV <15743 0001 > Redundant Control Logix PLC Structure	1.00	LS	N/A	0.00	0.00	5000.00	0.00	26750.00	0.00	31750.00	39,799	39798.62
USR HV <15743 0001 > Remote I/O Modules Structure	1.00	LS	N/A	0.00	0.00	3000.00	0.00	1605.00	0.00	4605.00	5,772	5772.37
B MIL HV <02230 4500 > Pumping System Control Enclosure deep, 12" wide, cable, sand bedding	1.00	LS	COETR23	0.22	16.25	699.82	648.60	3745.00	0.00	5093.42	6,385	6384.60
USR HV <15743 0001 > Plc Control Enclosure	1.00	LS	EELER18	0.02	181.32	5003.06	0.00	26750.00	0.00	31753.06	39,802	39802.46
USR HV <15743 0001 > Administrative Computer	1.00	EA	EELER18	0.23	14.51	400.24	0.00	2140.00	0.00	2540.24	3,184	3184.20
USR HV <15743 0001 > UPS Note: Use for communication panel	2.00	EA	EELER18	0.91	3.62	100.01	0.00	535.00	0.00	635.01	1,592	795.98

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR HV <15743 0001 > Ethernet Switch Note: Use for communication panel	1.00	EA	EELER18	0.23	14.51 15	400.24 502	0.00	2140.00 0	0.00	2540.24 3,184	3184.20
USR HV <15743 0001 > Administrative Report Printer	1.00	EA	EELER18	0.46	7.25 7	200.12 251	0.00	1070.00 0	0.00	1270.12 1,592	1592.10
USR HV <15743 0001 > VHF Dataradio	1.00	EA	EELER18	0.06	54.37 54	1500.09 1,880	0.00	2140.00 0	0.00	3640.09 4,563	4562.86
USR HV <15743 0001 > LN100 Protocol Converter	1.00	EA	EELER18	0.23	14.51 15	400.24 502	0.00	2140.00 0	0.00	2540.24 3,184	3184.20
USR HV <15743 0001 > VHF Dataradio	1.00	EA	EELER18	0.30	10.88 11	300.22 376	0.00	1605.00 0	0.00	1905.22 2,388	2388.19
USR HV <15743 0001 > Motorola Moscad-L	1.00	EA	EELER18	0.09	36.26 36	1000.61 1,254	0.00	5350.00 0	0.00	6350.61 7,960	7960.49
USR HV <15743 0001 > Motorola MCP IP Gateway	1.00	EA	EELER18	0.15	21.75 22	600.24 752	0.00	3210.00 0	0.00	3810.24 4,776	4776.13
USR HV <15743 0001 > 24 VDC Power Supply	2.00	EA	EELER18	0.91	3.63 7	100.06 251	0.00	535.00 0	0.00	635.06 1,592	796.05
USR HV <15743 0001 > Control Rack	1.00	LS	EELER18	0.05	72.53 73	2001.22 2,509	0.00	10700.00 0	0.00	12701.22 15,921	15920.98
USR HV <15743 0001 > Internet Video Server	1.00	EA	EELER18	0.09	36.26 36	1000.61 1,254	0.00	5350.00 0	0.00	6350.61 7,960	7960.49
USR HV <15743 0001 > Monochrome Duplex Multiplexer	1.00	EA	EELER18	0.46	7.25 7	200.12 251	0.00	1070.00 0	0.00	1270.12 1,592	1592.10
USR HV <15743 0001 > CO-Axial Cable Signal Splitter	5.00	EA	EELER18	0.91	3.63 18	100.06 627	0.00	535.00 0	0.00	635.06 3,980	796.05
USR HV <15743 0001 > UPS Note: Use for CCTV Security Equipment Cabinet	1.00	EA	EELER18	0.91	3.62 4	100.01 125	0.00	535.00 0	0.00	635.01 796	795.98
USR HV <15743 0001 > 120V Quad Receptacles	2.00	EA	EELER18	0.91	3.63 7	100.06 251	0.00	321.00 0	0.00	421.06 1,056	527.80
TOTAL Controls	1.00	EA			592	77,100	1,161	386,413	0	464,674	464673.77
TOTAL Controls and Instrumentation	1.00	MBH			592	77,100	1,161	386,413	0	464,674	464673.77

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL HVAC	1.00	MBH			4,497	183,310	1,161	943,832	0	1,128,304	1128304
04.01.01.11. Electric Power And Lighting											
04.01.01.11.01. Service and Distribution											
04.01.01.11.01.03. Main Switchboards											
USR EL <16315 0011 > Main Switchboard	1.00	EA	EELER19	0.05	48.64	2500.24	0.00	27820.00	0.00	30320.24	
					49	2,971	0	33,053	0	36,023	36023.48
MIL EL <16338 5560 > Safety switch, hvy dty, 600 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELER19	0.12	17.02	871.57	0.00	4307.19	0.00	5178.76	
					17	1,036	0	5,117	0	6,153	6152.89
NOTE: Use for service disconnect switch											
USR EL <16512 0151 > Manual Transfer Switch 600 A	1.00	EA	EELER19	0.06	16.00	819.28	0.00	6767.75	0.00	7587.03	
					16	973	0	8,041	0	9,014	9014.15
MIL EL <16712 1070 > Conduit, direct burial, PVC sched 40, 4" dia, w/coupling	350.00	LF	EELER19	20.00	0.10	5.12	0.00	3.27	0.00	8.39	
					35	2,129	0	1,362	0	3,491	9.97
MIL EL <16119 5760 > Wire, 600 volt, 500 kcmil, copper type XLPE-USE(RHW), stranded	0.10	MLF	EELER19	0.06	50.00	2560.25	0.00	4986.20	0.00	7546.45	
					5	304	0	592	0	897	8965.94
MIL EL <16119 5600 > Wire, 600 volt, copper type XLPE-USE(RHW), stranded, 1/0	0.05	MLF	EELER19	0.08	24.24	1241.33	0.00	1198.40	0.00	2439.73	
					1	74	0	71	0	145	2898.65
MIL EL <16153 0200 > Cable termn to 600V, no stress cones, 500 kcmil, term lugs, handwrap	12.00	EA	EELER19	5.00	0.50	25.70	0.00	12.84	0.00	38.54	
					6	366	0	183	0	550	45.79
MIL EL <16153 0140 > Cable termn to 600V, no stress cones, 1/0, term lugs, handwrapped	6.00	EA	EELER19	16.67	0.15	7.71	0.00	2.89	0.00	10.60	
					1	55	0	21	0	76	12.59
TOTAL Main Switchboards	1.00	AMP			130	7,908	0	48,440	0	56,348	56347.93
04.01.01.11.01.04. Interior Distrib. Transformers											
USR EL <16315 0012 > Current Transformer	3.00	EA	EELER19	2.50	1.00	51.41	0.00	470.80	0.00	522.21	
					3	183	0	1,678	0	1,861	620.43
MIL EL <16412 3500 > Dry type xfmr, 3 ph, 480 V pri 120/208 V sec, vent, 45 kVA	2.00	EA	EELER19	0.10	20.00	1024.10	0.00	1477.24	0.00	2501.34	
					40	2,433	0	3,510	0	5,944	2971.84
NOTE: Use for 480 V - 120/240 V Transformer											

LABOR ID: C43RES

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CREW ID: NATOIA

UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Interior Distrib. Transformers		1.00	AMP			43	2,617	0	5,188	0	7,805	7804.98
04.01.01.11.01.07. Motor Control Centers												
USR EL <16315 0011 >	Pump Engine Motor Control Center air, 3 P, 14000 A incm	4.00	EA	EELER19	0.06	38.88	1998.64	0.00	21400.00	0.00	23398.64	
						156	9,498	0	101,701	0	111,200	27799.92
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling NOTE: Pump engine mcc's power wiring conduit	1600.00	LF	EELLEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	
						71	4,326	0	2,278	0	6,604	4.13
MIL EL <16119 2000 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 4/0 NOTE: Engine mcc's power wiring	4.80	MLF	EELLEE1C2	0.06	36.36	1862.00	0.00	2022.30	0.00	3884.30	
						175	10,619	0	11,533	0	22,152	4614.94
MIL EL <16412 2700 >	Dry type xfmr, 3 ph, 480 V pri 120/208 V sec, vent, 6 kVA NOTE: Use for 5 kVA transformer for pump engine mcc's	4.00	EA	EELLEE1C1	0.10	10.00	512.05	0.00	711.85	0.00	1223.90	
						40	2,433	0	3,383	0	5,816	1454.12
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling NOTE: Conduit for power wiring Aux East MCC	400.00	LF	EELLEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	
						18	1,082	0	570	0	1,651	4.13
MIL EL <16119 2000 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 4/0 NOTE: Aux East MCC cable for power wiring	5.70	MLF	EELLEE1C2	0.06	36.36	1862.00	0.00	2022.30	0.00	3884.30	
						207	12,610	0	13,695	0	26,305	4614.94
USR EL <16315 0012 >	Aux East Motor Control Center	1.00	EA	EELER19	0.02	120.19	6178.49	0.00	66340.00	0.00	72518.49	
						120	7,341	0	78,819	0	86,159	86159.21
USR EL <16315 0013 >	Aux West Motor Control Center	1.00	EA	EELER19	0.03	89.61	4606.18	0.00	48150.00	0.00	52756.18	
						90	5,473	0	57,207	0	62,680	62679.62
MIL EL <16338 4510 >	Safety switch, hvy dty, 30 amp, w/ fuse, 240 volt, 3 pole NEMA 3R	18.00	EA	EELLEE1C1	0.33	3.08	157.55	0.00	218.78	0.00	376.34	
						55	3,369	0	4,679	0	8,048	447.13
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling NOTE: Conduit for power wiring Aux West MCC	1050.00	LF	EELLEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	
						47	2,839	0	1,495	0	4,334	4.13
MIL EL <16119 2000 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 4/0 NOTE: Aux West MCC cable for	3.15	MLF	EELLEE1C2	0.06	36.36	1862.00	0.00	2022.30	0.00	3884.30	
						115	6,969	0	7,568	0	14,537	4614.94

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
power wiring												
TOTAL Motor Control Centers		1.00	AMP			1.092	66,558	0	282,928	0	349,487	349486.61
TOTAL Service and Distribution		1.00	AMP			1.265	77,083	0	336,556	0	413,640	413639.53
04.01.01.11.02. Lighting and Branch Wiring												
04.01.01.11.02.02. Lighting Equipment												
B MIL EL <16822 5210 > Lighting/Power Allowance		21200	SF	EELER19	32.13	0.08	4.00	0.00	3.21	0.00	7.21	
						1.649	100,751	0	80,853	0	181,603	8.57
TOTAL Lighting Equipment		1.00	EA			1.649	100,751	0	80,853	0	181,603	181603.46
TOTAL Lighting and Branch Wiring		1.00	SF			1.649	100,751	0	80,853	0	181,603	181603.46
TOTAL Electric Power And Lighting		1.00	AMP			2.915	177,834	0	417,409	0	595,243	595242.99
04.01.01.12. Electrical Systems												
04.01.01.12.01. Communication, Security & Alarm Systems												
04.01.01.12.01.01. Fire Alarm Systems												
AF EL <16822 0300 > Fire alarm & detection, 16 zone, transmitter w/directional antenna		1.00	EA	EELER19	0.13	20.00	1028.10	0.00	4468.32	0.00	5496.42	5496.42
						20	1,221	0	5,309	0	6,530	6530.30
MIL EL <16822 2000 > Fire alarm & detection, pull station, manual, std		9.00	EA	EELER19	2.38	1.05	54.11	0.00	31.03	0.00	85.14	85.14
						9	579	0	332	0	910	101.16
MIL EL <16822 1230 > Fire alarm & detection, ionization, air duct, std, detector		12.00	EA	EELER19	0.69	3.64	186.93	0.00	187.25	0.00	374.18	374.18
						44	2,665	0	2,670	0	5,335	444.56
MIL EL <16822 1110 > Fire alarm & detection, pelec smoke, releasing unit 120V, detector		3.00	EA	EELER19	2.25	1.11	57.12	0.00	75.33	0.00	132.44	132.44
						3	204	0	268	0	472	157.36
AF EL <16822 5300 > Fire alarm & detection, alarm, light & horn		20.00	EA	EELER19	1.56	1.60	82.25	0.00	78.65	0.00	160.89	160.89
						32	1,954	0	1,869	0	3,823	191.16
MIL EL <16822 1300 > Fire alarm & detection, 15<rate-of-rise, thermal, 136<-190< fixed temp		39.00	EA	EELER19	2.38	1.05	54.11	0.00	19.26	0.00	73.37	73.37
						41	2,507	0	892	0	3,400	87.17

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16822 1300 > Fire alarm & detection, 15<	39.00	EA	EELER19	2.38	1.05	54.11	0.00	0.00	0.00	0.00	54.11	54.11
					41	2,507	0	0	0	0	2,507	64.29
USR EL <16121 0351 > Control Cable 2C - #14	2.64	MLF	EELER19	0.36	7.00	359.98	0.00	445.12	0.00	0.00	805.10	805.10
					18	1,129	0	1,396	0	0	2,525	956.54
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl					0.06	3.28	0.00	1.43	0.00	0.00	4.71	4.71
couplings only, steel rigid galv	2640.00	LF	ELELEEC1	15.63	169	10,279	0	4,497	0	0	14,776	5.60
MIL EL <16612 2000 > Emergency ltrg, (603)					2.50	128.51	0.00	539.28	0.00	0.00	667.79	667.79
nickel-cadmium, battery, 6 V	3.00	EA	EELER19	1.00	8	458	0	1,922	0	0	2,380	793.40
unit, 2 heads												
TOTAL Fire Alarm Systems	1.00	OUT			385	23,504	0	19,156	0	0	42,659	42659.18
04.01.01.12.01.07. Television Systems												
MIL EL <16862 0150 > TV sys, CC, 12x zoom 15 mm - 180	2.00	EA	EELER19	0.31	8.00	411.24	0.00	1112.80	0.00	0.00	1524.04	1524.04
mm lens, camera, general use					16	977	0	2,644	0	0	3,621	1810.71
NOTE: Use for interior camera												
MIL EL <16862 0340 > TV sys, CC, 12x zoom 15-180 mm	4.00	EA	EELER19	0.21	12.12	623.24	0.00	1294.70	0.00	0.00	1917.94	1917.94
lens, adverse env, camera,					48	2,962	0	6,153	0	0	9,115	2278.71
general use												
NOTE: Use for exterior camera												
MIL EL <16862 7000 > TV sys, CC, 16 camera, 2 monitor,	1.00	EA	EELER19	0.21	12.12	623.24	0.00	5466.63	0.00	0.00	6089.87	6089.87
microprocessor, matrix					12	740	0	6,495	0	0	7,235	7235.38
switcher/cont												
NOTE: Use for multiplexer/video												
switcher												
MIL EL <16862 2100 > TV sys, CC, head end eqpt, video	1.00	EA	EELER19	2.00	1.25	64.26	0.00	832.46	0.00	0.00	896.72	896.72
recorder w/rack mount					1	76	0	989	0	0	1,065	1065.39
MIL EL <16862 7000 > TV sys, CC, 16 camera, 2 monitor,	1.00	EA	EELER19	0.21	12.12	623.24	0.00	5466.63	0.00	0.00	6089.87	6089.87
microprocessor, matrix					12	740	0	6,495	0	0	7,235	7235.38
switcher/cont												
NOTE: Use for internet video												
server/multiplexer												
MIL EL <16862 6040 > TV sys, CC, video monitor, 19"	1.00	EA	EELER19	0.63	4.00	205.62	0.00	579.22	0.00	0.00	784.84	784.84
					4	244	0	688	0	0	932	932.47
RSM EL <16412 2310 > Dry type xfmr, 3 ph, 480 V pri	6.00	EA	ELELEEC1	0.13	8.00	409.64	0.00	482.78	0.00	0.00	892.42	892.42
120/208 V sec, vent, 3 kVA					48	2,920	0	3,442	0	0	6,362	1060.29
NOTE: Use for 200 VA, 120 V -												
24 V Transformer												

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



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04.01. Pump Station 1 - C43P1												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
MIL EL <16862 4230 > TV sys, CC, mount, housing, indoor, corner NOTE: Use for Video Server Cabinet	1.00	EA	EELER19	0.31	8	411.24 489	0.00	149.80 178	0.00	561.04 667	666.57	
USR EL <16862 0011 > Camera Pan, Tilt, Zoom Cntrler	1.00	EA	EELER19	0.63	4	205.62 244	0.00	5350.00 6,356	0.00	5555.62 6,601	6600.63	
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	1176.00	LF	EELER19	15.63	75	3,28 4,579	0.00	1.43 2,003	0.00	4.71 6,582	5.60	
MIL EL <16117 4020 > Coaxial cable, 3/4" dia, trunk, dir burial, cu covered al core	0.59	MLF	EELER22	0.13	37.28 22	1752.17 1,228	0.00	516.33 362	0.00	2268.50 1,590	2695.20	
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	1.77	MLF	EELER19	0.14	7.27 13	372.40 783	0.00	69.02 145	0.00	441.42 928	524.45	
TOTAL Television Systems	1.00	OUT			264	15,984	0	35,950	0	51,934	51934.34	
04.01.01.12.01.08. Security Systems												
MIL EL <16839 0940 > Access control eqpt, access, keypad for card reader	10.00	EA	EELER19	0.50	5.00 50	257.03 3,054	0.00	781.10 9,280	0.00	1038.13 12,334	1233.40	
MIL EL <16839 0750 > Access control eqpt, switch, tamper NOTE: Use for Limit Switch	10.00	EA	EELER19	0.75	3.33 33	171.35 2,036	0.00	47.08 559	0.00	218.43 2,595	259.52	
MIL EL <16839 0750 > Access control eqpt, switch, tamper NOTE: Use for Key Switch	4.00	EA	EELER19	0.75	3.33 13	171.35 814	0.00	47.08 224	0.00	218.43 1,038	259.52	
MIL EL <16839 0600 > Access control eqpt, local processor for card system NOTE: Use for Key Pad Security Panel	1.00	EA	EELER19	0.50	5.00 5	257.03 305	0.00	1685.25 2,002	0.00	1942.28 2,308	2307.62	
USR EL <16839 0599 > Security Control Panel	1.00	EA	EELER19	0.08	30.79 31	1582.67 1,880	0.00	1498.00 1,780	0.00	3080.67 3,660	3660.14	
USR EL <16121 0351 > Control Cable 2C - #14	0.20	MLF	EELER19	0.36	7.00 1	359.98 86	0.00	445.12 106	0.00	805.10 191	956.54	
USR EL <16121 0352 > Control Cable 4C - #14	0.30	MLF	EELER19	0.25	10.00 3	514.05 183	0.00	445.12 159	0.00	959.17 342	1139.59	
USR EL <16121 0353 > Control Cable 14C - #14	0.30	MLF	EELER19	0.11	22.50 7	1156.73 412	0.00	1057.16 377	0.00	2213.89 789	2630.32	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
USR EL <16121 0354 > Control Cable 16C - #14	0.20	MLF	EELER19	0.11	23.00	1182.27	0.00	1251.90	0.00	2434.17		
					5	281	0	297	0	578		2892.03
USR EL <16121 0355 > Control Cable 18C - #14	0.20	MLF	EELER19	0.11	23.50	1207.82	0.00	1446.64	0.00	2654.46		
					5	287	0	344	0	631		3153.77
USR EL <16121 0356 > Control Cable 20C - #14	0.03	MLF	EELER19	0.10	23.99	1233.33	0.00	1836.12	0.00	3069.45		
					1	44	0	65	0	109		3646.81
USR EL <16121 0357 > Control Cable 24C - #14	0.05	MLF	EELER19	0.10	25.00	1285.13	0.00	2169.96	0.00	3455.09		
					1	76	0	129	0	205		4104.99
USR EL <16121 0358 > Control Cable 26C - #14	0.13	MLF	EELER19	0.09	27.00	1387.82	0.00	2503.80	0.00	3891.62		
					4	214	0	387	0	601		4623.64
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv 1283.00 LF				15.63	0.06	3.28	0.00	1.43	0.00	4.71		
					82	4,995	0	2,186	0	7,181		5.60
TOTAL Security Systems	1.00	SYS			240	14,669	0	17,894	0	32,563		32563.10
TOTAL Communication, Security & Alarm	1.00	SF			890	54,156	0	73,000	0	127,157		127156.62
04.01.01.12.02. Special Electrical Systems												
04.01.01.12.02.01. Instruments & Controls												
USR EL <16617 0001 > Antenna Pole 120' Tall	1.00	EA	EELER15	0.07	85.71	4280.89	729.90	16050.00	0.00	21060.79		
					86	5,086	867	19,069	0	25,022		25022.32
TOTAL Instruments & Controls	1.00	EA			86	5,086	867	19,069	0	25,022		25022.32
TOTAL Special Electrical Systems	1.00	SF			86	5,086	867	19,069	0	25,022		25022.32
TOTAL Electrical Systems	1.00	SF			976	59,242	867	92,069	0	152,179		152178.94
04.01.01.13. Equipment												
04.01.01.13.01. Fixed and Moveable Equipment												
04.01.01.13.01.85. Bridge Crane												
B MIL AA <14660 0625 > Overhead bridge crane, 2 girder, 25 ton, 50' span	1.00	EA	ESEL4	0.00	2368.42	88386.14	12664.08	481500.00	0.00	582550.22		
					2,368	88,386	12,664	481,500	0	582,550		582550.22
M MIL AA <05150 8210 > Bridge Crane Runway	41.00	TON	SIWSE21	0.75	10.67	629.99	135.17	2140.00	0.00	2905.16		
					437	25,830	5,542	87,740	0	119,112		2905.16

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR AA <02422 0001 > Railroad, new rail, 110 lb prime relay, ARA-A & AREA		252.00	LF	CLABE13	162.50	0.04	0.99	0.62	24.08	0.00	25.69	
						11	249	157	6,067	0	6,473	25.69
TOTAL Bridge Crane		1.00	EA			2,817	114,465	18,363	575,307	0	708,135	708135.08
04.01.01.13.01.90. Stop Logs												
USR AA <05548 0611 > Stop Log		200.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	
						90	5,585	211	17,120	0	22,916	114.58
TOTAL Stop Logs		1.00	SF			90	5,585	211	17,120	0	22,916	22916.34
04.01.01.13.01.91. Elevator												
RSM AA <14211 0490 > Elevators, hydraulic passenger, 3000 lb cap, 3 stop, 150 FPM		1.00	EA	SSELELEV2	0.01	243.90	10439.63	0.00	44975.34	0.00	55414.98	
						244	10,440	0	44,975	0	55,415	55414.98
TOTAL Elevator		1.00	EA			244	10,440	0	44,975	0	55,415	55414.98
TOTAL Fixed and Moveable Equipment		1.00	SF			3,150	130,490	18,574	637,402	0	786,466	786466.39
TOTAL Equipment		1.00	SF			3,150	130,490	18,574	637,402	0	786,466	786466.39
TOTAL Pump Station 1						90,277	2,884,148	336,015	10896917	0	14,117,080	
04.01.02. Equipment												
04.01.02.01. Pumps												
B USR ME <15286 4621 > Drainage Pump, 500 cfs		2.00	EA	MFLUQ2	0.00	2000.00	77339.84	0.00	761840.00	0.00	839179.84	
						4,000	183,775	0	1,810,284	0	1,994,059	997029.57
USR ME <15286 4622 > Drainage Pump, 250 cfs		2.00	EA	MFLUQ2	0.00	1200.00	46403.90	0.00	465450.00	0.00	511853.90	
						2,400	110,265	0	1,106,002	0	1,216,267	608133.62
TOTAL Pumps						6,400	294,040	0	2,916,286	0	3,210,326	
04.01.02.02. Pump Engine												
USR ME <16513 3271 > Diesel Engine, 3600 hp, 900 rpm (Caterpillar 3612)		2.00	EA	EELER13	0.00	2400.00	121962.52	11549.64	1498000	0.00	1631512.16	
						4,800	289,807	27,444	3,559,548	0	3,876,799	1938400
USR ME <16513 3272 > Diesel Engine, 1800 hp, 1800 rpm (Caterpillar 3516)		2.00	EA	EELER13	0.01	1200.00	60981.26	5774.32	749000.00	0.00	815756.08	
						2,400	144,904	13,722	1,779,774	0	1,938,400	969199.80

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1									
QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST UNIT COST
USR ME <16513 3273 > Reduction Gear 1800 hp									
2.00	EA	EELER13	0.01	681.82	34648.44	3281.15	219350.00	0.00	257279.59
				1,364	82,332	7,797	521,219	0	611,348 305673.88
USR ME <16513 3274 > Reduction Gear 3600 hp									
2.00	EA	EELER13	0.00	1363.64	69296.89	6562.30	433350.00	0.00	509209.18
				2,727	164,663	15,593	1,029,726	0	1,209,983 604991.43
MIL ME <15197 5380 > Valves, steel, 1", forged, ball valve, 800 lb, threaded									
4.00	EA	MELOPLUM1	2.38	0.42	17.18	0.00	71.42	0.00	88.60
				2	82	0	339	0	421 105.27
NOTE: Use for valve on engines									
TOTAL Pump Engine									
11,293				681,788	64,556	6,890,607	0	7,636,950	
04.01.02.03. Cooling Water Pumps									
USR ME <15286 4531 > Cooling Water Pump & Motor, 1050 gpm									
3.00	EA	MELOU2	0.04	82.42	3187.08	0.00	14884.77	0.00	18071.85
				247	11,360	0	53,054	0	64,413 21471.17
USR ME <15286 4519 > Cooling Water Pump & Motor 525 gpm									
2.00	EA	MELOU2	0.04	70.75	2736.08	0.00	12614.23	0.00	15350.31
				142	6,501	0	29,974	0	36,475 18237.70
TOTAL Cooling Water Pumps									
389				17,861	0	83,028	0	100,889	
04.01.02.04. Lubrication Water Pumps									
NOTE: Also Fresh Water Pumps									
USR ME <15286 2001 > Lube Water Pump, 80 gpm									
2.00	EA	MELOU1	0.05	40.00	1504.11	0.00	7960.80	0.00	9464.91
				80	3,574	0	18,916	0	22,491 11245.26
USR ME <15286 2002 > Fresh Water Pump									
2.00	EA	MELOU1	0.03	80.00	3008.22	0.00	17049.38	0.00	20057.60
				160	7,148	0	40,513	0	47,661 23830.44
TOTAL Lubrication Water Pumps									
240				10,722	0	59,429	0	70,151	
04.01.02.05. Vacuum Pumps									
USR ME <15297 0011 > Vacuum Pumps, 40 hp									
2.00	EA	MELOU2	0.04	80.00	3093.59	0.00	17049.38	0.00	20142.97
				160	7,351	0	40,513	0	47,864 23931.87
USR ME <15297 0012 > Vacuum Pumps, 60 hp									
2.00	EA	MELOU2	0.03	100.00	3866.99	0.00	29403.60	0.00	33270.59
				200	9,189	0	69,869	0	79,058 39528.79
TOTAL Vacuum Pumps									
360				16,540	0	110,382	0	126,921	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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04. Pump Stations

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.02.06. Waste Fuel & Engine Oil Equipt												
USR ME <15290 0701 > Waste Lube/FO Trans Pump, 25 gpm	2.00	EA	MPLUQ1	0.05	40.00	1504.11	0.00	12519.00	0.00	14023.11		
					80	3,574	0	29,748	0	33,322	16660.86	
USR ME <15290 0702 > Waste Lube/Fuel Oil Pump, 50 gpm	2.00	EA	MPLUQ1	0.04	50.00	1880.14	0.00	46759.00	0.00	48639.14		
					100	4,468	0	111,109	0	115,576	57788.16	
MIL ME <16513 3200 > Generator set, gsl eng, xfr swifuel tank, 500 kW, incl btry, chgr, muf	111.11			0.02	222	13,736	904.44	92555.00	0.00	99240.25		
					222	13,736	2,149	219,929	0	235,815	117907.34	
NOTE: Cat 3412												
TOTAL Waste Fuel & Engine Oil Equipt												
	402				21,778	2,149	360,786	0		384,713		
04.01.02.07. Lube Oil Pumps												
USR ME <15290 0801 > Lube Oil Receiving Pump, 25 gpm	1.00	EA	MPLUQ3	0.10	40.00	1578.14	0.00	12519.00	0.00	14097.14		
					40	1,875	0	14,874	0	16,749	16748.81	
USR ME <15290 0802 > Lube Oil Transfer Pump, 25 gpm	2.00	EA	MPLUQ3	0.10	40.00	1578.14	0.00	12519.00	0.00	14097.14		
					80	3,750	0	29,748	0	33,498	16748.81	
USR ME <15290 0803> Lube Oil Makeup Pump, 3 gpm	2.00	EA	MPLUQ3	0.13	30.01	1183.90	0.00	9630.00	0.00	10813.90		
					60	2,813	0	22,883	0	25,696	12848.00	
TOTAL Lube Oil Pumps												
	180				8,438	0	67,504	0		75,942		
04.01.02.08. Potable Water System Equipment												
USR ME <15298 0011 > Well Pump 10 gpm	1.00	EA	MPLUQ1	0.15	13.33	501.37	0.00	1871.62	0.00	2372.99		
					13	596	0	2,224	0	2,819	2819.35	
USR ME <11225 0001 > Water Softener, 10 gpm	2.00	EA	MPLUQ22	0.20	10.00	376.03	307.44	1101.03	0.00	1784.50		
					20	894	731	2,616	0	4,240	2120.16	
USR ME <11225 0002 > Reverse Osmosis Unit w/Booster Pump	6.00	EA	MPLUQ22	0.20	10.00	376.03	307.44	2514.50	0.00	3197.97		
					60	2,681	2,192	17,925	0	22,797	3799.50	
MIL ME <11225 0200 > Pressure filter, pretreat of raw wtr,sand,eiec opn, 3'D, 36 GPM	2.00	EA	MPLUQ22	0.03	63.90	2402.73	1964.47	3540.84	0.00	7908.05		
					128	5,709	4,668	8,414	0	18,791	9395.55	
NOTE: Use for 10 gpm filter												
USR ME <11225 0003 > Hydropneumatic Tank, 100 gal	1.00	EA	MPLUQ22	0.10	20.00	752.06	614.88	9351.80	0.00	10718.73		
					20	894	731	11,111	0	12,735	12734.93	
USR ME <11225 0004 > Ultra Violet Units, 14 gpm	2.00	EA	MPLUQ22	0.50	4.00	150.41	122.98	442.98	0.00	716.37		
					8	357	292	1,053	0	1,702	851.12	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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04.01. Pump Station 1 - C43PI	QUANTY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Potable Water System Equipment	249	11,130	8,613	43,342	0	63,085				
04.01.02.09. Compressed Air System										
MIL ME <15726 6090 > Compressor, air, 53.7SCFM, 15HP, 120gal, recip, 2stg, press lube, HD	30.00	643.84	0.00	8353.62	0.00	8997.46				
NOTE: Use for 55 cfm compressor	60	1,530	0	19,850	0	21,380	10689.88			
MIL ME <13205 3040 > Tanks, stl, 275 gal, abv gnd, w/cradles, ctg, ftg, no fdn/pmp/piping	3.20	67.26	0.00	252.76	0.00	320.02				
NOTE: Use for starting air receiver 275 gal	6	160	0	601	0	760	380.21			
MIL ME <15727 1720 > Compressor accessories, 25 CFM, refeed air dryer w/ambient air filter	2.42	50.96	0.00	1016.50	0.00	1067.46				
NOTE: Use for particulate filter	2	61	0	1,208	0	1,268	1268.25			
TOTAL Compressed Air System	69	1,750	0	21,658	0	23,408				
04.01.02.10. Vacuum Pumps										
USR ME <15297 0011 > Vacuum Pump, 60 hp	176.47	6824.10	0.00	29403.60	0.00	36227.70				
	353	16,215	0	69,869	0	86,084	43042.13			
USR ME <15297 0012 > Vacuum Pump, 40 hp	117.65	4549.40	0.00	17049.38	0.00	21598.78				
	235	10,810	0	40,513	0	51,323	25661.51			
TOTAL Vacuum Pumps	588	27,026	0	110,382	0	137,407				
04.01.02.20. Trash Rake										
USR ME <05910 0001 > Trash Rake w/2 Trolley Grippers	606.06	36442.41	6832.17	627020.00	0.00	670294.58				
	606	43,297	8,117	744,962	0	796,377	796376.99			
USR ME <05910 0002 > 304L Screen	4000.00	240519.90	45092.30	1765500	0.00	2051112.20				
	4,000	285,762	53,574	2,097,591	0	2,436,926	2436926			
USR ME <05910 0003 > Field Service	305.34	18360.30	3442.16	0.00	0.00	21802.46				
	305	21,814	4,090	0	0	25,904	25903.50			
TOTAL Trash Rake	4,911	350,873	65,781	2,842,553	0	3,259,207	3259207			

LABOR ID: C43RES

EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.02.21. Auxillary Bay Trash Screen											
USR ME <05910 0004 > Trash Screen	1.00	EA	SIWSLSA	0.01	404.04	24294.94	4554.78	171200.00	0.00	200049.72	
					404	28,865	5,412	203,403	0	237,679	237679.07
TOTAL Auxillary Bay Trash Screen	1.00	EA			404	28,865	5,412	203,403	0	237,679	237679.07
TOTAL Equipment											
	25,485					1,470,810	146,511	13709359	0	15,326,680	
04.01.03. Trash Handling System Bridge											
04.01.03.01. End Bent											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.52	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
Note: Includes Intermediate bent					27	703	0	2,427	0	3,130	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	13.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	1,641	0	1,641	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	13.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					8	130	81	0	0	211	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	117.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					2	34	0	4	0	38	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	311.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					34	648	0	253	0	901	2.90
TOTAL End Bent	70					1,515	81	4,325	0	5,921	
04.01.03.02. Intermediate Bent											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.52	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					27	703	0	2,427	0	3,130	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	33.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	4,167	0	4,167	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	33.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					19	330	205	0	0	535	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	352.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					5	102	0	11	0	113	0.32

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

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04.01. Pump Station 1 - C43P1

MIL AA <03182 2150 > Forms in place, walls, below gr,  
to 8' high, 4 use, job built  
plywood

TOTAL Intermediate Bent

04.01.03.03. Approach Slabs

MIL AA <03372 4600 > Placing conc, slab on grade,  
over 6" thick, direct chute

MIL AA <03170 3060 > Forms in place, SOG, edge forms,  
wood, over 12", 4 use

M MIL AA <03217 0500 > Reinforcing in place, slab on  
grade, #3 to #7

MIL AA <03396 0010 > Finishing floors, monolithic,  
screed finish

MIL AA <03396 0100 > Finishing floors, monolithic,  
float finish

MIL AA <03396 0150 > Finishing floors, monolithic,  
broom finish

M RSM AA <03326 0300 > Concrete ready mix, regular  
weight, 4000 psi

TOTAL Approach Slabs

04.01.03.04. Precast Concrete Piling

MIL AA <02364 4000 > Piles, conc, square, precast,  
prestressed, 40' long, 18" thick 1170.00 VLF CFIDB19A

TOTAL Precast Concrete Piling

04.01.03.05. Precast Concrete Bridge Deck

AF AA <03150 7101 > Forms in place, alt price, elev  
slab, edge, 7"-12" high, 4 use

CIV AA <03150 1500 > Forms in place, elev slab, flat  
plate plywd 15'-20' high 4 use

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

04.01. Pump Station 1 - C43P1

MIL AA <03182 2150 > Forms in place, walls, below gr,  
to 8' high, 4 use, job built  
plywood

TOTAL Intermediate Bent

04.01.03.03. Approach Slabs

MIL AA <03372 4600 > Placing conc, slab on grade,  
over 6" thick, direct chute

MIL AA <03170 3060 > Forms in place, SOG, edge forms,  
wood, over 12", 4 use

M MIL AA <03217 0500 > Reinforcing in place, slab on  
grade, #3 to #7

MIL AA <03396 0010 > Finishing floors, monolithic,  
screed finish

MIL AA <03396 0100 > Finishing floors, monolithic,  
float finish

MIL AA <03396 0150 > Finishing floors, monolithic,  
broom finish

M RSM AA <03326 0300 > Concrete ready mix, regular  
weight, 4000 psi

TOTAL Approach Slabs

04.01.03.04. Precast Concrete Piling

MIL AA <02364 4000 > Piles, conc, square, precast,  
prestressed, 40' long, 18" thick 1170.00 VLF CFIDB19A

TOTAL Precast Concrete Piling

04.01.03.05. Precast Concrete Bridge Deck

AF AA <03150 7101 > Forms in place, alt price, elev  
slab, edge, 7"-12" high, 4 use

CIV AA <03150 1500 > Forms in place, elev slab, flat  
plate plywd 15'-20' high 4 use

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA



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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST	
	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	4000.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	233.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	233.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	12.82	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Precast Concrete Bridge Deck					745	15,190	884	46,605	0	62,680	
04.01.03.06. Concrete Guardrail											
USR AA < > Concrete Guardrail	240.00	LF		0.00	0.00	15.00	0.00	53.50	0.00	68.50	68.50
TOTAL Concrete Guardrail					0	3,600	0	12,840	0	16,440	
04.01.03.07. Steel Guardrail											
USR AA <05523 0960 > Guard Rail (3 - Rail 1-1/2" Dia) NOTE: Use for wingwalls & structure guard rail	180.00	LF	SIWSE4	17.39	0.23	14.33	0.54	28.89	0.00	43.76	43.76
TOTAL Steel Guardrail					41	2,580	97	5,200	0	7,878	
04.01.04. Siphon Break Structure											
04.01.04.01. Side Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7 Note: Includes intermediate bent	82.00	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	207.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1824.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

04.01. Pump Station 1 - C43P1												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	207.00	CY	CLABC20	13.75	0.58 120	10.01 2,072	6.21 1,286	0.00 0	0.00 0	16.22 3,357		16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	11458	SF	ACARC2	54.38	0.11 1,264	2.08 23,881	0.00 0	0.81 9,318	0.00 0	2.90 33,198		2.90
TOTAL Side Walls					2,286	49,352	1,286	114,478	0	165,116		
04.01.04.02. Bottom Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	800.00	CY	ULABC6	20.63	0.29 233	3.93 3,140	0.36 287	0.00 0	0.00 0	4.28 3,428		4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	3376.00	SF	ACARC1	43.75	0.09 309	1.65 5,574	0.00 0	0.83 2,818	0.00 0	2.49 8,392		2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	318.00	TON	SIWRRODM4	0.29	4,417	363.20 115,496	0.00 0	963.00 306,234	0.00 0	1326.20 421,730		1326.20
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	6912.00	SF	ACMACEF11	112.50	0.01 62	0.17 1,198	0.00 0	0.00 0	0.00 0	0.17 1,198		0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	6912.00	SF	ACMACEF11	90.63	0.01 76	0.22 1,487	0.00 0	0.00 0	0.00 0	0.22 1,487		0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	6912.00	SF	ACMACEF11	78.75	0.01 88	0.25 1,711	0.00 0	0.00 0	0.00 0	0.25 1,711		0.25
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	800.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 101,008	0.00 0	126.26 101,008		126.26
TOTAL Bottom Slab					5,183	128,606	287	410,060	0	538,953		
04.01.04.03. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	105.00	SF	ACARC1	43.75	0.09 10	1.65 173	0.00 0	0.40 42	0.00 0	2.05 215		2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	420.00	SF	ACARC2	61.88	0.10 41	1.83 769	0.00 0	1.14 481	0.00 0	2.98 1,250		2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1224.00	SF	ACMACEF11	112.50	0.01 11	0.17 212	0.00 0	0.00 0	0.00 0	0.17 212		0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	68.00	CY	CLABC20	22.50	0.36 24	6.12 416	3.80 238	0.00 0	0.00 0	9.91 674		9.91

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04.01. Pump Station 1 - C43P1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	68.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	27.00	TON	SINRRDM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab				460	11,377	258			35,109	0	46,744	
04.01.04.04. Manhole												
MIL AA <02752 4590 > Manhole cover & frame, CI, city type, 18" dia x 175 lb	4.00	EA	CODLB6	1.00	3.00	66.83	16.25	117.09	488	0.00	200.17	200.17
USR AA <02752 0001 > Precast Concrete Riser	4.00	EA	DOEHB22	0.51	7.41	174.70	63.53	326.11	1,304	0.00	564.35	564.35
TOTAL Manhole				42	966	319		1,773	0		3,058	
04.01.04.05. Guardrail												
USR AA <05523 0960 > Guard Rail (3 - Rail 1-1/2" Dia) NOTE: Use for wingwalls & structure guard rail	144.00	LF	SINSE4	17.39	0.23	14.33	0.54	28.89	4,160	0.00	43.76	43.76
TOTAL Guardrail				33	2,064	78		4,160	0		6,302	
04.01.04.06. Waterstop												
MIL AA <03198 1050 > Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb	560.00	LF	ACARCAPP1	16.25	0.06	1.23	0.00	6.26	3,505	0.00	7.49	7.49
TOTAL Waterstop				34	691	0		3,505	0		4,196	
TOTAL Siphon Break Structure				8,039	193,056	2,228		569,085	0		764,369	
04.01.05. Saxophone Discharge												
04.01.05.01. Excavation												
CIV AA <02228 0392 > Excavate, mdm soil, 3CY excavator	4846.00	CY	CODEB12Y	288.50	0.01	0.39	0.31	0.00	0	0.00	0.70	0.70
TOTAL Excavation				50	1,868	1,506		0	0		3,374	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL	COST	UNIT	COST
04.01.05.02. Cofferdam																
USR AA <02161 0001 > Steel Sheet Pile Cutoff																
		33600	SF	CPIDB40		95.63	2,812	114,240	54,546	1.62	16.05	0.00	21.07	0.00	708,066	21.07
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi																
		1024.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	74.90	0.00	74.90	0.00	76,698	74.90
NOTE: Use for Tremie Concrete																
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped																
		1024.00	CY	CIABC20		23.13	354	6,094	3,781	3.69	0.00	0.00	9.64	0.00	9,875	9.64
NOTE: Use for Tremie Concrete																
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7																
		17.00	TON	SIWRRODM4		0.38	181	4,742	0.00	0.00	963.00	0.00	1241.93	0.00	21,113	1241.93
NOTE: Use for I Wall																
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi																
		438.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	0.00	55,302	126.26
NOTE: Use for I Wall																
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped																
		438.00	CY	CIABC20		13.75	255	4,384	2,720	6.21	0.00	0.00	16.22	0.00	7,104	16.22
NOTE: Use for I wall																
MIL AA <03398 0010 > Finishing walls, break ties & patch voids																
		5632.00	SF	ACMACEF11		67.50	83	1,627	0.00	0.00	0.03	0.00	0.32	0.00	1,807	0.32
NOTE: Use for I Wall																
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood																
		5632.00	SF	ACARC2		54.38	621	11,738	0.00	0.00	0.81	0.00	2.90	0.00	16,318	2.90
NOTE: Use for I Wall																
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi																
		300.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	74.90	0.00	74.90	0.00	22,470	74.90
NOTE: Use for Thrust Block																
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped																
		300.00	CY	CIABC20		23.13	104	1,785	1,108	3.69	0.00	0.00	9.64	0.00	2,893	9.64
NOTE: Use for Thrust Block																
TOTAL Cofferdam																
						4,411	144,610	62,156	714,881	0	921,647	0	921,647			
04.01.05.03. Backfilling																
USR AA <02270 0099 > Rip-rap, random, machine placed for slope protection																
		32.00	TON	UOEHB12G		66.08	1	48	0.63	27.29	0.00	0.00	29.41	0.00	941	29.41

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <02216 5520 >	Backfill, strl, 6" lifts, w/dozer, no compaction, around foundation	3714.00	CY	CODTB11R		275.00	0.01	0.18	0.26	0.00	0.00	0.00	0.44	0.44
MIL AA <02220 9040 >	Compaction, water, wagon, 6000 gal, 6 mile haul	3714.00	CY	COFWB59		200.00	0.01	0.19	0.33	0.00	0.21	0.00	0.73	0.73
AF AA <02220 5810 >	Compaction, steel wheel tandem roller, 10 ton	3714.00	CY	COFCE10Y		337.50	0.00	0.15	0.09	0.00	0.00	0.00	0.24	0.24
TOTAL Backfilling							56	1,983	2,509	0	1,668	0	6,160	
TOTAL Saxophone Discharge							4,518	148,460	66,171	716,549	0	0	931,181	
04.01.06. Equipment Building														
MIL AA <03170 3000 >	Forms in place, SOG, edge forms, wood, to 6" high, 4 use	32.00	LF	ACARCL		75.00	0.05	0.96	0.00	0.00	0.51	0.00	1.48	1.48
MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.04	TON	SIWRRODM4		0.29	13.89	363.20	0.00	0.00	727.60	0.00	1090.80	1090.80
M RSM AA <03326 0300 >	Concrete ready mix, regular weight 1:3:5 mix 4000 psi	1.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 4400 >	Placing conc, slab on grade, 6" thick, w/crane & bucket	1.00	CY	ULABC7		13.75	0.58	10.01	7.94	0.00	0.00	0.00	17.95	17.95
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	64.00	SF	ACMACEF11		112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	64.00	SF	ACMACEF11		90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	64.00	SF	ACMACEF11		84.38	0.01	0.23	0.00	0.00	0.00	0.00	0.23	0.23
MIL AA <02215 2460 >	Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	1.00	CY	CODFE10N		47.50	0.03	1.07	0.77	0.00	16.26	0.00	18.10	18.10
USR AA <03450 0001 >	Precast Concrete Building 8'x8' Note: Material price from Concrete Modular Systems 727-945-9756 ATTN: Fredrick Kennedy	1.00	EA	SIWSE7A		0.06	130.08	7180.22	1676.22	15573.85	0.00	0.00	24430.29	24430.29

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	PNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Equipment Building		1.00	JB			135	7,276	1,685		15,762	0	24,723	24723.12
04.01.07. Sheet Pile Retaining Wall													
USR AA <02161 0001 > Steel Sheet Pile													
		104840	SF	CPIDB40	95.63	8,775	356,456	170,197		1,682,682	0.00	2,209,335	21.07
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7													
		16.00	TON	SIWRRODM4	0.38	171	4,463	0		963.00	0.00	1241.93	
NOTE: Use for Anchor Wall													
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi													
		744.00	CY	N/A	0.00	0	0	0		93,937	0.00	93,937	126.26
NOTE: Use for Anchor Wall													
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped													
		744.00	CY	CLABC20	13.75	433	7,446	6.21		0.00	0.00	16.22	
NOTE: Use for Anchor wall													
MIL AA <03398 0010 > Finishing walls, break ties & patch voids													
		10044	SF	ACMACEF11	67.50	149	2,901	0		322	0.00	3,223	0.32
NOTE: Use for Anchor Wall													
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood													
		10044	SF	ACARC2	54.38	1,108	20,934	0		8,168	0.00	29,101	2.90
NOTE: Use for I Wall													
MIL AA <02161 2550 > Sheet piling, sti, connections & struts, 2/3 salvage, wales													
		55.00	TON	ACARF4	0.15	2,200	65,733	37,172		10,995	0.00	113,900	2070.92
Note: Use for Threaded Rod & C 12 x 25 Wale													
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi													
		299.00	CY	N/A	0.00	0	0	0		37,752	0.00	37,752	126.26
NOTE: Use for Concrete cap													
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped													
		299.00	CY	CLABC20	13.75	174	2,993	6.21		0.00	0.00	16.22	
NOTE: Use for concrete cap													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7													
		7.00	TON	SIWRRODM4	0.38	75	1,953	0		963.00	0.00	1241.93	
NOTE: Use for concrete cap													
MIL AA <03398 0010 > Finishing walls, break ties & patch voids													
		8073.00	SF	ACMACEF11	67.50	119	2,331	0		259	0.00	2,591	0.32
NOTE: Use for concrete cap													

LABOR ID: C43RES EQUIP ID: C43RES

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04.01. Pump Station 1 - C43P1										TOTAL COST UNIT COST	
	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood NOTE: Use for concrete cap	8073.00	SF	ACARC2	54.38	0.11 890	2.08 16,826	0.00 0	0.81 6,555	0.00 0	2.90 23,391	2.90
RSW AA <05523 0010 > Railing, pipe, aluminum, 2 rail, satin finish, 1.25" dia	1339.00	LF	SINSE4	20.00	0.20 268	12.46 16,689	0.47 631	14.61 19,557	0.00 0	27.54 36,876	27.54
USR AA <05523 0010 > Railing, pipe, aluminum, 2 rail, 1339.00 LF SINSE4	20.00			20.00	0.20 268	12.46 16,689	0.47 631	0.00 0	0.00 0	12.93 17,319	12.93
TOTAL Sheet Pile Retaining Wall	1.00	JB			14,629	515,413	215,109	1,882,386	0	2,612,907	2612907
04.01.08. Earthwork Final Grading											
USR AA <02226 4101 > Earth Work Final Grading	1.00	LS	COFGB11L	0.01	222 222	6294.77 6,295	4176.92 4,177	9630.00 9,630	0.00 0	20101.69 20,102	20101.69
TOTAL Earthwork Final Grading	1.00	JB			222	6,295	4,177	9,630	0	20,102	20101.69
04.01.09. Pavement											
M MIL AA <02244 1510 > Shell Rock Base	2287.00	CY	COFGB36C	54.38	0.09 210	3.39 7,747	4.02 9,200	6.42 14,683	0.00 0	13.83 31,629	13.83
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	10241	SY	ULABA2	150.00	0.02 205	0.41 4,162	0.15 1,510	1.38 14,136	0.00 0	1.93 19,807	1.93
M RSW AA <02505 0810 > Asphaltic conc pavement, highway, Structural Course	1584.00	TON	COKCB25	78.75	0.14 221	2.94 4,655	1.78 2,816	42.80 67,795	0.00 0	47.52 75,266	47.52
M RSW AA <02505 0850 > Asphaltic conc pavement, highway, Friction Course	507.00	TON	COKCB25B	71.88	0.17 85	3.84 1,947	2.60 1,318	42.80 21,700	0.00 0	49.24 24,965	49.24
USR AA <02532 2001 > Pavement Markings	1.00	LS	APTPOED1	0.04	27.25 27	499.55 500	0.00 0	535.00 535	0.00 0	1034.55 1,035	1034.55
CIV AA <02841 1100 > Parking barriers, 8" x 13" x 6'-0", wheel stops, precast conc w/dowels	10.00	EA	ULABB2	15.00	0.33 3	4.10 41	0.00 0	34.97 350	0.00 0	39.07 391	39.07
USR AA <15176 1010 > Storm Sewer Ditch Bottom Inlets Type C & S	12.00	EA	MPLUQ1	0.15	13.30 160	500.04 6,000	0.00 0	2140.00 25,680	0.00 0	2640.04 31,680	2640.04
TOTAL Pavement	92167	SF			911	25,052	14,843	144,878	0	184,773	2.00

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04.01. Pump Station 1 - C43P1	QUANTITY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.01.10. Concrete Paved Ditch											
M RSW AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi NOTE: Use for Tremie Concrete	85.00 CY	N/A	0.00	0.00	0.00	0.00	0.00	74.90	0.00	74.90	74.90
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped NOTE: Use for Tremie Concrete	85.00 CY	CLABC20	23.13	0.35	5.95	3.69	314	0.00	0.00	9.64	9.64
TOTAL Concrete Paved Ditch	85.00 CY			29	506	314	6,367	0	7,186	84.54	
04.01.11. Channel Excavation											
USR AA <02228 0371 > Excavate, wet soil	240430 CY	CODEB12C	256.50	0.01	0.39	0.29	0.00	0.00	0.00	0.68	0.68
TOTAL Channel Excavation	240430 CY			1,875	92,878	69,773	0	0	0	162,651	0.68
04.01.12. Septic Tank & Drain Field											
MIL AA <02709 2130 > Piping, subdrainage, perforated PVC, 10" dia	1000.00 LF	CLABB14	35.00	0.17	2.97	0.46	5.01	0.00	0.00	8.45	8.45
MIL AA <02780 0200 > Septic tanks, no exc or piping, precast, 5,000 gal	1.00 EA	CLABB13	0.44	15.98	366.57	231.46	5280.91	0.00	0.00	5878.94	5878.94
TOTAL Septic Tank & Drain Field	1.00 EA			187	3,341	696	10,289	0	0	14,326	14325.54
04.01.13. Storm Sewer Piping											
MIL AA <02762 2030 > Piping, drainage & sewage, 15" dia, RCP, class 3, no gaskets	139.00 LF	CLABB14	16.25	0.37	6.41	1.00	13.03	0.00	0.00	20.44	20.44
MIL AA <02762 2030 > Piping, drainage & sewage, 18" dia, RCP, class 3, no gaskets	296.00 LF	CLABB14	16.25	0.37	6.41	1.00	13.03	0.00	0.00	20.44	20.44
MIL AA <02762 2040 > Piping, drainage & sewage, 24" dia, RCP, class 3, no gaskets	272.00 LF	CLABB14	12.50	0.48	8.33	1.30	19.05	0.00	0.00	28.68	28.68
TOTAL Storm Sewer Piping	1.00 EA			291	5,052	789	10,850	0	0	16,691	16690.83
TOTAL Pump Station 1 - C43P1	1.00 EA			147,884	5,386,859	863,495	28085635	0	0	34,335,990	34335990

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CREW ID: NAT01A

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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.02. Pump Station 4 - C43P4												
04.02. Pump Station 4 - C43P4												
04.02.01. Pump Station 4 - C43P4												
04.02.01.01. Substructure												
04.02.01.01.02. Special Foundation Conditions												
04.02.01.01.02.04. Dewatering												
USR AA <02161 0001 > Steel Sheet Pile	6600.00	SF	CPIDB40	95.63	0.08	3.40	1.62	16.05	0.00	0.00	21.07	21.07
					552	22,440	10,714	105,930	0	0	139,084	21.07
MIL AA <02161 2550 > Sheet piling, stl, connections & struts, 2/3 salvage, wales	17.00	TON	ACARF4	0.15	40.00	1195.15	675.86	199.91	0.00	0.00	2070.92	2070.92
					680	20,317	11,490	3,398	0	0	35,206	2070.92
B USR AA <02144 1001 > Wellpoints, compl instl, first month, 600' L header, 8" dia	250.00	LF	UOELEQLT4	1.71	2.34	99.97	0.00	42.80	0.00	0.00	142.77	142.77
					586	24,992	0	10,700	0	0	35,692	142.77
B RSW AA <02144 1100 > Wellpoints, compl instl, ea addl month, 600' L header, 8" dia	250.00	LF	UOELEQLT4	4.27	0.94	39.99	0.00	26.75	0.00	0.00	66.74	66.74
					234	9,997	0	6,688	0	0	16,684	66.74
NOTE: Use for 5 additional months												
TOTAL Dewatering	1.00	SF			2,053	77,747	22,204	126,716	0	0	226,667	226666.85
TOTAL Special Foundation Conditions	1.00	SF			2,053	77,747	22,204	126,716	0	0	226,667	226666.85
04.02.01.01.04. Foundation Excavation												
04.02.01.01.04.01. Excavation for Foundation												
USR AA <02228 0371 > Excavate, wet soil	4000.00	CY	CODEB12C	256.50	0.01	0.39	0.29	0.00	0.00	0.00	0.68	0.68
					31	1,545	1,161	0	0	0	2,706	0.68
TOTAL Excavation for Foundation	1.00	CY			31	1,545	1,161	0	0	0	2,706	2706.00
TOTAL Foundation Excavation	1.00	CY			31	1,545	1,161	0	0	0	2,706	2706.00
TOTAL Substructure	1.00	SF			2,084	79,292	23,365	126,716	0	0	229,373	229372.85

LABOR ID: C43RES EQUIP ID: C43RES

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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.02.01.02. Superstructure											
04.02.01.02.03. Stair Construction											
04.02.01.02.03.01. Interior Stair Structure											
MIL AA <05511 0020 > Stair, stl,grating trd & pipe r, 3'-6" W, saf nosing, stl strg Note: Use for control building	8.00	LF	SIWSE4	4.38	0.91	56.98	2.15	112.35	0.00	171.48	171.48
					7	456	17	899	0	1,372	171.48
TOTAL Interior Stair Structure	1.00	VLF			7	456	17	899	0	1,372	1371.83
TOTAL Stair Construction	1.00	FLT			7	456	17	899	0	1,372	1371.83
TOTAL Superstructure	1.00	SF			7	456	17	899	0	1,372	1371.83
04.02.01.03. Exterior Closure											
04.02.01.03.01. Exterior Walls											
04.02.01.03.01.01. Exterior Skin											
MIL AA <04234 0450 > CMU, back-up, 12" x 8" x 16", no scaf/reinf, 2000 psi	1920.00	SF	AMABD9	46.25	0.13	2.44	0.00	2.27	0.00	4.71	4.71
					249	4,680	0	4,355	0	9,036	4.71
TOTAL Exterior Skin	1.00	SF			249	4,680	0	4,355	0	9,036	9035.52
04.02.01.03.01.03. Interior Skin											
04.02.01.03.01.03. Interior Skin											
MIL AA <04234 0350 > CMU, back-up, 8" x 8" x 16", no scaf/reinf, 2000 psi	528.00	SF	AMABD8	50.00	0.10	1.95	0.00	1.54	0.00	3.49	3.49
					53	1,030	0	814	0	1,844	3.49
TOTAL Interior Skin	1.00	SF			53	1,030	0	814	0	1,844	1844.04
TOTAL Exterior Walls	1.00	SF			302	5,711	0	5,169	0	10,880	10879.56
04.02.01.03.03. Exterior Personnel Doors											
04.02.01.03.03.02. Solid Doors											
MIL AA <08109 1160 > Coml stl dr, fl,pair 3'x7'-0", full pnl hol core,18 ga, 1.75" T	6.00	EA	ACARCARP2	1.50	1.33	26.73	0.00	404.46	0.00	431.19	431.19
					8	160	0	2,427	0	2,587	431.19
MIL AA <08116 2940 > Steel frames KD, 3'-0" W, single, 16 ga, 4.75" D, 7'-0" high	2.00	EA	ACARCARP2	1.88	1.07	21.38	0.00	79.05	0.00	100.43	100.43
					2	43	0	158	0	201	100.43

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
04. Pump Stations

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04.02. Pump Station 4 - C43P4											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <08116 2960 > Steel frames KD, 6'-0" W, double, 16 ga, 4.75" D, 7'-0" high	2.00	EA	ACARCARP2	1.50	1.33 3	26.73 53	0.00 0	95.40 191	0.00 0	122.13 244	122.13
MIL AA <08713 1795 > Hinge, half mortise, US4, high freq, brass base, 4.5" x 4.5"	9.00	PR	N/A	0.00	0.00 0	0.00 0	0.00 0	113.54 1,022	0.00 0	113.54 1,022	113.54
MIL AA <08715 8540 > Lockset, std duty, entr series, cyl, w/sect trim, brass base, US26D	6.00	EA	ACARCARP1	1.00	1.00 6	20.05 120	0.00 0	159.80 959	0.00 0	179.85 1,079	179.85
MIL AA <08728 8000 > Door closer, traditional, std duty, parrallel arm, primed, surf mtd	6.00	EA	ACARCARP1	0.75	1.33 8	26.73 160	0.00 0	113.82 683	0.00 0	140.54 843	140.54
MIL AA <09924 0320 > Int. Painting, wood door & HM frame, natural finish door, ptd frame	6.00	EA	APTRPORD1	0.50	2.00 12	36.67 220	0.00 0	12.58 75	0.00 0	49.25 295	49.25
MIL AA <08361 2650 > Overhead coml, no frame, manual, 10' x 10' H, steel, 24 ga sectional	1.00	EA	ACARCARP2	0.23	8.89 9	178.19 178	0.00 0	554.04 554	0.00 0	732.23 732	732.23
TOTAL Solid Doors	1.00	EA			48	935	0	6,069	0	7,004	7004.19
TOTAL Exterior Personnel Doors	1.00	EA			48	935	0	6,069	0	7,004	7004.19
TOTAL Exterior Closure	1.00	SF			350	6,646	0	11,238	0	17,884	17883.75
04.02.01.04. Roofing											
04.02.01.04.01. Roofing											
04.02.01.04.01.01. Roof Coverings											
USR AA <07324 0051 > Precast 10" Hollowcore Roof Panels	1736.00	SF	ARETROTS1	2.38	0.42 729	10.03 17,412	0.00 0	16.05 27,863	0.00 0	26.08 45,275	26.08
TOTAL Roof Coverings	1.00	SF			729	17,412	0	27,863	0	45,275	45274.71
04.02.01.04.01.05. Roofing Openings & Supports											
MIL AA <07726 0500 > Roof hatches, 2'-6" x 3', al curb & cover, w/curb, 1" fbglis insul	3.00	EA	ALABG3	1.25	3.20 10	53.83 161	0.00 0	423.87 1,272	0.00 0	477.70 1,433	477.70
TOTAL Roofing Openings & Supports	1.00	SF			10	161	0	1,272	0	1,433	1433.09

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.02.01.04.01.06. Gutters and Downspouts											
MIL AA <07725 0500 > Roof drains, scupper, sst, tapered, 4" to 8" x 8" x 5"	8.00	EA	MSHMSHEEL	2.50	0.40	8.62	0.00	115.72	0.00	124.34	124.34
					3	69		926	0	995	124.34
MIL AA <07621 0400 > Downspouts, aluminum 3" x 4", .024" thick, enameled	160.00	LF	MSHMSHEEL	17.50	0.06	1.23	0.00	1.68	0.00	2.91	2.91
					9	197		269	0	466	2.91
TOTAL Gutters and Downspouts	1.00	LF			12	266	0	1,195	0	1,461	1460.51
TOTAL Roofing											
	1.00	SF			751	17,839	0	30,329	0	48,168	48168.31
TOTAL Roofing											
	1.00	SF			751	17,839	0	30,329	0	48,168	48168.31
04.02.01.05. Interior Construction											
04.02.01.05.02. Interior Personnel Doors											
04.02.01.05.02.01. Standard Interior Doors											
MIL AA <08109 1160 > Coml std dr, fl, pair 3'x7'-0", full pnl hoi core, 18 ga, 1.75" T	2.00	EA	ACARCARE2	1.50	1.33	26.73	0.00	404.46	0.00	431.19	431.19
					3	53		809	0	862	431.19
MIL AA <08116 2940 > Steel frames KD, 3'-0" W, single, 16 ga, 4.75" D, 7'-0" high	2.00	EA	ACARCARE2	1.88	1.07	21.38	0.00	79.05	0.00	100.43	100.43
					2	43		158	0	201	100.43
MIL AA <08713 1795 > Hinge, half mortise, US4, high freq, brass base, 4.5" x 4.5"	3.00	PR	N/A	0.00	0.00	0.00	0.00	113.54	0.00	113.54	113.54
					0	0		341	0	341	113.54
MIL AA <08715 8540 > Lockset, std duty, entr series, cyl, w/sect trim, brass base, US26D	2.00	EA	ACARCARE1	1.00	1.00	20.05	0.00	159.80	0.00	179.85	179.85
					2	40		320	0	360	179.85
MIL AA <08728 8000 > Door closer, traditional, std duty, parallel arm, primed, surf mtd	2.00	EA	ACARCARE1	0.75	1.33	26.73	0.00	113.82	0.00	140.54	140.54
					3	53		228	0	281	140.54
MIL AA <09924 0320 > Int. painting, wood door & HM frame, natural finish door, ptd frame	2.00	EA	APTRFORD1	0.50	2.00	36.67	0.00	12.58	0.00	49.25	49.25
					4	73		25	0	98	49.25
TOTAL Standard Interior Doors	1.00	EA			13	263	0	1,880	0	2,143	2143.15
TOTAL Interior Personnel Doors	1.00	EA			13	263	0	1,880	0	2,143	2143.15

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.02.01.05.04. Interior Specialties											
04.02.01.05.04.01. Guard Rails Toilet Partitions											
USR AA <05523 0960 > Guard Rail (3 - Rail 1-1/2" Dia) NOTE: Use control building	292.00	LF	SIWSE4	17.39	0.23	14.33	0.54	28.89	0.00	43.76	
					67	4,185	158	8,436	0	12,779	43.76
TOTAL Guard Rails	1.00	EA			67	4,185	158	8,436	0	12,779	12779.29
04.02.01.05.04.03. Stairs & Ladders											
MIL AA <05511 0020 > Stair, stl, grating trd & pipe r, 3'-6" W, saf nosing, stl strg Note: Use for control building	16.00	LF	SIWSE4	4.38	0.91	56.98	2.15	112.35	0.00	171.48	
					15	912	34	1,798	0	2,744	171.48
USR AA <05511 0021 > Spiral Stairs 3'-6" W, saf nosing, stl strg Note: Use for control building	10.00	LF	SIWSE4	6.47	0.62	38.55	1.46	224.70	0.00	264.70	
					6	385	15	2,247	0	2,647	264.70
MIL AA <05511 0020 > Stair, stl, grating trd & pipe r, 3'-6" W, saf nosing, stl strg Note: Use for main pump station	94.00	LF	SIWSE4	4.38	0.91	56.98	2.15	112.35	0.00	171.48	
					86	5,356	202	10,561	0	16,119	171.48
MIL AA <05518 0010 > Ladder, steel, 20" wide, bolted to conc, w/cage	42.00	VLF	SIWSE4	6.25	0.64	39.88	1.51	58.14	0.00	99.53	
					27	1,675	63	2,442	0	4,180	99.53
MIL AA <05518 0100 > Ladder, steel, 20" wide, bolted to conc, w/o cage	45.00	VLF	SIWSE4	10.63	0.38	23.46	0.89	27.04	0.00	51.39	
					17	1,056	40	1,217	0	2,312	51.39
TOTAL Stairs & Ladders	1.00	SF			151	9,384	355	18,264	0	28,003	28002.56
TOTAL Interior Specialties											
	1.00	SF			218	13,569	513	26,700	0	40,782	40781.86
TOTAL Interior Construction											
	1.00	SF			231	13,832	513	28,580	0	42,925	42925.00
04.02.01.09. HVAC											
04.02.01.09.04. Distribution Systems											
04.02.01.09.04.01. Air Distribution, Cooling and Heating											
USR HV <15708 2311 > HVAC	1.00	LS	MSFF05	0.01	246.91	5190.07	0.00	12882.80	0.00	18072.87	
					247	6,506	0	16,149	0	22,654	22654.34
TOTAL Air Distribution, Cooling and Heating	1.00	MCF			247	6,506	0	16,149	0	22,654	22654.34

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UF01EA

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04. Pump Stations

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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
TOTAL Distribution Systems												
04.02.01.09.06. Controls and Instrumentation	1.00	MBH			247	6,506	0	16,149	0	22,654		22654.34
04.02.01.09.06.90. Controls												
USR HV <15743 0001 > PV 1500	1.00	EA	N/A	0.00	0.00	1600.00	0.00	8560.00	0.00	10160.00		12735.56
USR HV <15743 0001 > Ethernet Switch Note: Use for PLC & SCADA System Network	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00		795.97
USR HV <15743 0001 > Logix PLC	1.00	EA	N/A	0.00	0.00	2000.00	0.00	10700.00	0.00	12700.00		15919.45
USR HV <15743 0001 > Telemetry IO/From Pumpstation Structure	1.00	LS	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00		795.97
USR HV <15743 0001 > 24 VDC Power Supply Structure	1.00	LS	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00		2387.92
USR HV <15743 0001 > UHF Dataradio	1.00	EA	EELER18	0.30	11	376	0.00	1605.00	0.00	1905.22		2388.19
USR HV <15743 0001 > Motorola Moscad-L	1.00	EA	EELER18	0.09	36	1,254	0.00	5350.00	0.00	6350.61		7960.49
USR HV <15743 0001 > Motorola MCP IP Gateway	1.00	EA	EELER18	0.15	22	752	0.00	3210.00	0.00	3810.24		4776.13
TOTAL Controls	1.00	EA		69	7,522	0	40,237	0	47,760	47759.68		70414.03
TOTAL Controls and Instrumentation	1.00	MBH		69	7,522	0	40,237	0	47,760	47759.68		70414.03
TOTAL HVAC	1.00	MBH		316	14,028	0	56,386	0	70,414	70414.03		196,868
04.02.01.11. Electrical												
04.02.01.11.01. Service and Distribution												
04.02.01.11.01.9X. Service And Distribution	1.00	LS		0.00	0.00	0.00	0.00	0.00	165700.00	165700.00		196,868
USR EL <16611 0051 > Electrical	1.00	LS		0.00	0.00	0.00	0.00	0.00	196,868	196,868		196,868
TOTAL Service And Distribution	1.00	LS		0.00	0.00	0.00	0.00	0.00	196,868	196,868		196,868

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UFO1EA

Wed 31 May 2006  
Eff. Date 05/31/06  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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04. Pump Stations

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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Service and Distribution	1.00	AMP			0	0	0	0	196,868	196,868	196,868.17
TOTAL Electrical	1.00	AMP			0	0	0	0	196,868	196,868	196,868.17
TOTAL Pump Station 4 - C43P4	3,740			132,093	23,895	254,147	196,868	607,004			
04.02.02. Equipment											
04.02.02.01. Barrel Pump & Motor											
B USR ME <15286 4621 > Barrel Pump & Motor 22.440 gpm, 300 hp	3.00	EA	MPLUQ2	0.00	1764.71	68241.04	0.00	410563.28	0.00	478804.32	
					5,294	243,232	0	1,463,371	0	1,706,602	568867.41
TOTAL Barrel Pump & Motor	3.00	3A			5,294	243,232	0	1,463,371	0	1,706,602	568867.41
TOTAL Equipment					5,294	243,232	0	1,463,371	0	1,706,602	
04.02.04. Intake Structure											
04.02.04.01. Footing											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	82.00	TON	SIWRROD4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
Note: Includes intermediate bent					875	22,873	0	78,966	0	101,839	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	207.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1824.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					27	527	0	59	0	585	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	207.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					120	2,072	1,286	0	0	3,357	16.22
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	207.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					60	813	74	0	0	887	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	640.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					58	1,057	0	534	0	1,591	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	16.50	TON	SIWRROD4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					229	5,993	0	15,890	0	21,882	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	207.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	26,136	0	26,136	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1872.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					17	324	0	0	0	324	0.17

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UF01EA

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04.02. Pump Station 4 - C43P4	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1872.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22	403
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1872.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25	463
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	11458 SF	ACARC2		54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90	33,198
TOTAL Footing	1.00	EA			2,695	58,404	1,360	157,037	0	216,802	216801.74	
04.02.04.02. Abutments, Piers, Backwall												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	800.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28	3,428
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	3376.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49	8,392
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	318.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20	421,730
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	6912.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17	1,198
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	6912.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22	1,487
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	6912.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25	1,711
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	800.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	101,008
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	18.80	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93	23,348
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	235.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	29,671
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	235.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22	3,812
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	304.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32	98

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA



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04.02. Pump Station 4 - C43P4

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	5280.00	SF	ACARC2	54.38	0.11 582	2.08 11,005	0.00 0	0.81 4,294	0.00 0	2.90 15,298	2.90

TOTAL Abutments, Piers, Backwall	1.00	EA			6,107	147,295	1,747	462,139	0	611,180	611179.68
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04.02.04.03. Intake Noses

M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	10.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 1,263	0.00 0	126.26 1,263	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	10.00	CY	CLABC20	13.75	0.58 6	10.01 100	6.21 62	0.00 0	0.00 0	16.22 162	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	207.00	SF	ACARC2	54.38	0.11 23	2.08 431	0.00 0	0.81 168	0.00 0	2.90 600	2.90

TOTAL Intake Noses

	1.00	EA			29	532	62	1,431	0	2,025	2024.55
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04.02.04.04. Keyway

M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.00	TON	SIWRRODM4	0.38	10.67 11	278.93 279	0.00 0	963.00 963	0.00 0	1241.93 1,242	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	12.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 1,515	0.00 0	126.26 1,515	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	12.00	CY	CLABC20	13.75	0.58 7	10.01 120	6.21 75	0.00 0	0.00 0	16.22 195	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	304.00	SF	ACARC2	54.38	0.11 34	2.08 634	0.00 0	0.81 247	0.00 0	2.90 881	2.90

TOTAL Keyway

	1.00	EA			51	1,033	75	2,725	0	3,832	3832.50
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TOTAL Intake Structure

					8,882	207,263	3,243	623,332	0	833,838	
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04.02.05. Pump House/ Discharge Structure

04.02.05.01. Wall Footings

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	118.00	CY	ULABC6	20.63	0.29 34	3.93 463	0.36 42	0.00 0	0.00 0	4.28 506	4.28
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LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
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04. Pump Stations

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04.02. Pump Station 4 - C43P4

	QUANTITY	DOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	1062.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49		
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	9.50	TON SIWRRODM4		0.29	13.89	363.20	0.00	963.00	0.00	1326.20		2.49
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	118.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		1326.20
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	708.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17		123
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	708.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22		152
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	708.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25		175
TOTAL Wall Footings				286	6,117	42	24,934	0	0	31,093		

04.02.05.02. Foundation Wall

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	68.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28		291
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	2124.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49		4.28
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	5.50	TON SIWRRODM4		0.29	13.89	363.20	0.00	963.00	0.00	1326.20		2.49
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	68.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		7,294
TOTAL Foundation Wall				290	5,771	24	15,655	0	0	21,451		

04.02.05.03. Slabs

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	50.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28		214
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	2715.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49		4.28
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	33.40	TON SIWRRODM4		0.29	13.89	363.20	0.00	963.00	0.00	1326.20		2.49

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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04.02. Pump Station 4 - C43P4

	QUANTY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	50.00	CY	N/A		0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	4796.00	SF	ACWACEF11		112.50	43	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	4796.00	SF	ACWACEF11		90.63	53	1,032	0.00	0.00	0.00	1,032	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	4796.00	SF	ACWACEF11		78.75	61	1,187	0.00	0.00	0.00	1,187	0.25
TOTAL Slabs						883	19,860	18	40,743	0	60,621	

04.02.05.04. Columns

M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	8.00	TON	SIWRRODM4		0.38	85	2,231	0.00	963.00	0.00	1241.93	1241.93
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket	50.00	CY	ULABC7		5.00	80	1,376	21.84	0.00	0.00	49.36	49.36
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	50.00	CY	N/A		0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use	2688.00	SF	ACARC1		28.13	382	6,904	0.00	1,524	0.00	8,428	3.14
TOTAL Columns						548	10,511	1,092	15,541	0	27,144	

04.02.05.05. Beams

M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	8.70	TON	SIWRRODM4		0.38	93	2,427	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	109.00	CY	N/A		0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	109.00	CY	ULABC7		8.13	107	1,846	13.44	0.00	0.00	30.38	30.38
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	444.00	SF	ACWACEF11		67.50	7	128	0.00	0.03	0.00	0.32	0.32
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	3294.00	SF	ACARC2		47.13	419	7,921	0.00	1,02	0.00	3,42	3.42

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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04.02. Pump Station 4 - C43P4

QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
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TOTAL Beams

626	12,323	1,465	25,503	0	39,290					
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04.02.05.06. Chamber Walls

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	156.00	CY	ULABC6	20.63	0.29	45	3.93	0.36	0.00	0.00	4.28	668	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	4248.00	SF	ACARCL	43.75	0.09	388	7,014	0.00	0.83	0.00	2.49	10,559	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	12.50	TON	SIWRRDM4	0.29	13.89	174	363.20	0.00	963.00	0.00	1326.20	16,577	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	156.00	CY	N/A	0.00	0.00	0	0	0.00	126.26	0.00	126.26	19,697	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	60.00	SF	ACMACEF11	112.50	0.01	1	10	0.00	0.00	0.00	0.17	10	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	60.00	SF	ACMACEF11	90.63	0.01	1	13	0.00	0.00	0.00	0.22	13	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	60.00	SF	ACMACEF11	78.75	0.01	1	15	0.00	0.00	0.00	0.25	15	0.25
TOTAL Chamber Walls	609	12,204	56	35,279	0	47,540							

04.02.05.08. Approach Slab

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	156.00	CY	ULABC6	20.63	0.29	45	3.93	0.36	0.00	0.00	4.28	668	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	4248.00	SF	ACARCL	43.75	0.09	388	7,014	0.00	0.83	0.00	2.49	10,559	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	12.50	TON	SIWRRDM4	0.29	13.89	174	363.20	0.00	963.00	0.00	1326.20	16,577	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	156.00	CY	N/A	0.00	0.00	0	0	0.00	126.26	0.00	126.26	19,697	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	60.00	SF	ACMACEF11	112.50	0.01	1	10	0.00	0.00	0.00	0.17	10	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	60.00	SF	ACMACEF11	90.63	0.01	1	13	0.00	0.00	0.00	0.22	13	0.22

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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04.02. Pump Station 4 - C43P4

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	60.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	9.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	34.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	9.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	140.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	140.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	140.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Approach Slab				622	12,458	59	36,637	0	0	49,153	

04.02.05.09. Intake Slab

MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1380.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1380.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1380.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.40	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	55.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
TOTAL Intake Slab				122	2,692	20	11,182	0	0	13,893	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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04.02. Pump Station 4 - C43P4

04.02.05.10. Discharge Chamber Keyway

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.80	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	11.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	1241.93
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	11.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	126.26
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	304.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	16.22

TOTAL Discharge Chamber Keyway

48 967 68 2,406 0 3,442

04.02.05.11. Equipment Pads

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	4.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	21.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	4.28
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.30	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	2.49
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	1326.20
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	108.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	126.26
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	108.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.17
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	108.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.22

TOTAL Equipment Pads

11 228 1 811 0 1,041

TOTAL Pump House/ Discharge Structure

4,046 83,130 2,846 208,692 0 294,668

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

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04. Pump Stations

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04.02. Pump Station 4 - C43P4		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
04.02.06. Retaining Walls												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	260.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	5370.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	20.80	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	260.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	255.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	255.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	255.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Retaining Walls		864				17,604	93	57,340	0	75,037		
04.02.10. Sitework												
USR AA <02228 0001 >	Site Work	1.00	JB	CODEB12C	0.00	6,667	330,288	248,144	244,774	0	823,206	823,206.27
TOTAL Sitework		6,667	330,288	248,144	244,774	0	823,206					
TOTAL Pump Station 4 - C43P4		29,492	1,013,610	278,221	2,851,656	196,868	4,340,355					
TOTAL Pump Stations		177,376	6,400,469	1,141,717	30937291	196,868	38,676,345					

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05. Main Outlet Structure											
05.01. Gate S1											
05.01.01. Excavation	1.00	JB			0	0	0	0	0	0	0.00
TOTAL Excavation											
05.01.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	368.00	SF	CPIDB40	95.63	0.08	3.40	1.62	16.05	0.00	21.07	
					31	1,527	729	7,211	0	9,467	25.73
TOTAL Sheet Piling	1.00	EA			31	1,527	729	7,211	0	9,467	9467.32
05.01.03. Concrete											
05.01.03.01. Conduits											
05.01.03.01.10. Typical Conduit											
05.01.03.01.10.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	270.10	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					79	1,060	97	0	0	1,157	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	665.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					61	1,098	0	555	0	1,653	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	13.16	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					183	4,780	0	12,673	0	17,453	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	270.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	34,090	0	34,090	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	3120.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					28	541	0	0	0	541	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	3120.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					34	671	0	0	0	671	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	3120.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					40	772	0	0	0	772	0.25
TOTAL Base Slab	1.00	EA			424	8,922	97	47,318	0	56,337	56337.15

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



Wed 31 May 2006  
Eff. Date 05/31/06  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.01.03.01.10.02. Center Haunch											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	14.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	156.00	SF	ACARC1	43.75	0.09	1.55	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.70	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	14.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
TOTAL Center Haunch	1.00	EA		28	567	5	2,572	0	0	3,144	3143.73
05.01.03.01.10.03. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	722.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	3120.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	3120.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	283.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	283.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	13.79	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab	1.00	EA		689	14,186	1,074	52,869	0	0	68,130	68129.86
05.01.03.01.10.04. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	7.60	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	156.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	156.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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30% Submittal  
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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	3744.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	5670.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls	1.00	EA			853	16,580	969	31,746	0	49,295	49295.18
TOTAL Typical Conduit	1.00	EA			1,993	40,255	2,145	134,506	0	176,906	176905.92
05.01.03.01.15. Conduit at Gatewell											
05.01.03.01.15.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	100.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	209.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.03	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	100.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	562.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	562.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	562.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab	1.00	EA			122	2,559	36	16,681	0	19,276	19275.90
05.01.03.01.15.02. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	398.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	540.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	809.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UF01EA

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05.01. Gate S1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF	AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	83.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
						30	508	315	0	0	823	823
M	RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	83.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	10,480	0	10,480	126.26
M	MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.03	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
						56	1,464	0	3,881	0	5,345	5,345
	TOTAL Top Slab	1.00	EA			181	3,758	315	15,136	0	19,209	19208.99
05.01.03.01.15.03. Walls												
M	MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.82	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						51	1,344	0	4,642	0	5,986	1241.93
M	RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	99.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	12,500	0	12,500	126.26
MIL	AA <03372 5100 > Placing conc, walls, 12" thick, pumped	99.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						58	991	615	0	0	1,606	16.22
MIL	AA <03398 0010 > Finishing walls, break ties & patch voids	960.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						14	277	0	31	0	308	0.32
MIL	AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1440.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						159	3,001	0	1,171	0	4,172	2.90
	TOTAL Walls	1.00	EA			282	5,614	615	18,343	0	24,572	24571.89
	TOTAL Conduit at Gatewell	1.00	EA			586	11,930	966	50,161	0	63,057	63056.78
	TOTAL Conduits	1.00	EA			2,579	52,185	3,111	184,667	0	239,963	239962.70
05.01.03.02. Gatewell												
05.01.03.02.10. Gatewell												
05.01.03.02.10.01. Walls (I to Flow)												
M	MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.29	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						46	1,197	0	4,131	0	5,328	1241.93
M	RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	76.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	9,596	0	9,596	126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATOIA UPB ID: UP01EA

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05.01. Gate S1	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	76.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1372.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2192.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls (I to Flow)	1.00	EA			352	6,922	472	15,554	0	22,948	22947.70
05.01.03.02.10.02. Walls (II to Flow)											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.63	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	47.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	47.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1120.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1680.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls (II to Flow)	1.00	EA			257	5,029	292	9,869	0	15,190	15189.85
05.01.03.02.10.03. Air Vent Castings											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.21	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	4.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	122.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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05.01. Gate S1											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	122.00	SF	ACARC2	54.38	0.11 13	2.08 254	0.00 0	0.81 99	0.00 0	2.90 353	2.90
TOTAL Air Vent Castings	1.00	EA			20	388	25	810	0	1,223	1223.36
TOTAL Gatewell	1.00	EA			629	12,339	789	26,233	0	39,361	39360.91
TOTAL Gatewell	1.00	EA			629	12,339	789	26,233	0	39,361	39360.91
05.01.03.03. Intake											
05.01.03.03.01. Intake											
05.01.03.03.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	248.00	CY	ULABC6	20.63	0.29 72	3.93 974	0.36 89	0.00 0	0.00 0	4.28 1,063	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	569.00	SF	ACARC1	43.75	0.09 52	1.65 939	0.00 0	0.83 475	0.00 0	2.49 1,414	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	11.90	TON	SIWRRODM4	0.29	13.89 165	363.20 4,322	0.00 0	963.00 11,460	0.00 0	1326.20 15,782	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	247.90	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 31,300	0.00 0	126.26 31,300	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1541.00	SF	ACMACEF11	112.50	0.01 14	0.17 267	0.00 0	0.00 0	0.00 0	0.17 267	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1541.00	SF	ACMACEF11	90.63	0.01 17	0.22 331	0.00 0	0.00 0	0.00 0	0.22 331	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1541.00	SF	ACMACEF11	78.75	0.01 20	0.25 381	0.00 0	0.00 0	0.00 0	0.25 381	0.25
TOTAL Base Slab	1.00	EA			340	7,215	89	43,234	0	50,538	50538.40
05.01.03.03.01.02. Top Girders											
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	743.00	SF	ACMACEF11	67.50	0.01 11	0.29 215	0.00 0	0.03 24	0.00 0	0.32 238	0.32
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	9.00	CY	ULABC7	8.13	0.98 9	16.94 152	13.44 121	0.00 0	0.00 0	30.38 273	30.38

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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05.01. Gate Sl		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		9.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.43	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	126.26
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders		608.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
TOTAL Top Girders		1.00	EA			102	1,949	121	2,192	0	4,262	4262.33
05.01.03.03.01.03. Top Beams												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.21	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket		4.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		600.00	SF	ACMACEF1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders		480.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
TOTAL Top Beams		1.00	EA			76	1,454	54	1,214	0	2,722	2722.11
05.01.03.03.01.04. Headwall												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		3.87	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		80.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		80.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		2262.00	SF	ACMACEF1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		2736.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Headwall	1.00	EA			423	8,236	497	16,125	0	24,858	24857.79
05.01.03.03.01.05. Backside Intake Double Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	7.02	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					75	1,958	0	6,760	0	8,718	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	145.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	18,308	0	18,308	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	145.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					84	1,451	901	0	0	2,352	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	2058.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					30	594	0	66	0	660	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2040.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					225	4,252	0	1,659	0	5,911	2.90
TOTAL Backside Intake Double Wall	1.00	EA			415	8,255	901	26,793	0	35,949	35948.99
05.01.03.03.01.06. Transition To Conduit Side Curved Sections											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.41	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					15	393	0	1,358	0	1,751	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	29.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	3,662	0	3,662	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	29.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					17	290	180	0	0	470	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	252.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					4	73	0	8	0	81	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	450.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					50	938	0	366	0	1,304	2.90
TOTAL Transition To Conduit	1.00	EA			85	1,694	180	5,393	0	7,268	7267.72

LABOR ID: C43RES

EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.01.03.03.01.07. Transition To Conduit Center Section												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.06	TON	SINWRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	75
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	150.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	48
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	150.00	SF	ACAPC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	435
TOTAL Transition To Conduit	1.00	EA			20	383	6	311	0	0	700	699.74
05.01.03.03.01.08. Walls (II to Flow)												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.49	TON	SINWRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	6,818
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	114.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	14,394
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	114.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	1,849
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	3201.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	1,027
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3976.00	SF	ACAPC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	11,520
TOTAL Walls (II to Flow)	1.00	EA			611	11,884	708	23,017	0	0	35,608	35608.12
05.01.03.03.01.09. Divider Wall (II to Flow)												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.10	TON	SINWRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1,366
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	23.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	2,904

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	23.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	873.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	822.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Divider Wall (II to Flow)	1.00	EA			129	2,502	143	4,660	0	7,305	7304.96
05.01.03.03.01.10. Center Columns											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.07	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	662.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket	1.40	CY	ULABC7	5.00	1.60	27.52	21.84	0.00	0.00	49.36	49.36
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.40	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use	662.00	SF	ACARC1	28.13	0.14	2.57	0.00	0.57	0.00	3.14	3.14
TOTAL Center Columns	1.00	EA			107	1,949	31	641	0	2,621	2620.87
TOTAL Intake	1.00	EA			2,307	45,522	2,729	123,581	0	171,831	171831.05
TOTAL Intake	1.00	EA			2,307	45,522	2,729	123,581	0	171,831	171831.05
05.01.03.04. Stilling Basin											
05.01.03.04.01. Stilling Basin Parabolic Transition											
05.01.03.04.01.01. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.98	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	78.80	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	78.80	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					46	789	489	0	0	1,278	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1890.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
					28	546	0	61	0	607	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2835.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					313	5,909	0	2,305	0	8,214	2.90
TOTAL Walls	1.00	EA			450	8,911	489	18,074	0	27,475	27474.77
05.01.03.04.01.02. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct cnute	47.60	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					14	187	17	0	0	204	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	179.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					16	296	0	149	0	445	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.61	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					50	1,311	0	3,476	0	4,788	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	47.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	6,010	0	6,010	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	858.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					8	149	0	0	0	149	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	858.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					9	185	0	0	0	185	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	858.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
					11	212	0	0	0	212	0.25
TOTAL Base Slab	1.00	EA			108	2,339	17	9,636	0	11,992	11992.02
05.01.03.04.01.03. Shear Key											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.27	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					3	75	0	260	0	335	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	505	0	505	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	4.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					2	40	25	0	0	65	16.22

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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05.01. Gate S1

MIL AA <03182 2150 > Forms in place, walls, below gr,  
to 8' high, 4 use, job built  
plywood

TOTAL Shear Key

05.01.03.04.01.04. Top Slab

AF AA <03150 7101 > Forms in place, alt price, elev  
slab, edge, 7'-12" high, 4 use

CIV AA <03150 1500 > Forms in place, elev slab, flat  
plate plywd 15'-20' high 4 use

MIL AA <03396 0010 > Finishing floors, monolithic,  
screed finish

AF AA <03372 1600 > Placing conc, elev slabs, over  
10" thick, pumped

M RSM AA <03326 0300 > Concrete ready mix, regular  
weight, 4000 psi

M MIL AA <03217 0600 > Reinforcing in place, slab on  
grade, #3 to #7

TOTAL Top Slab

TOTAL Stilling Basin Parabolic

05.01.03.04.02. Stilling Hydraulic Jump Basin

05.01.03.04.02.01. Walls

M MIL AA <03217 0700 > Reinforcing in place, walls, #3  
to #7

M RSM AA <03326 0300 > Concrete ready mix, regular  
weight, 4000 psi

MIL AA <03372 5100 > Placing conc, walls, 12" thick,  
pumped

MIL AA <03398 0010 > Finishing walls, break ties &  
patch voids

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	98.00	SF	ACARC2	54.38	11	204	0	0.00	0.81	0.00	2.90	2.90
TOTAL Shear Key	1.00	EA			16	320	25	845	0	1,189	1189.18	
05.01.03.04.01.04. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use	37.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	37.00	SF	ACARC2	61.88	0.10	1.83	0.00	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	858.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	39.70	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	39.70	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.01	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab	1.00	EA			71	1,614	151	7,968	0	9,732	9732.43	
TOTAL Stilling Basin Parabolic	1.00	EA			645	13,184	682	36,523	0	50,388	50388.40	
05.01.03.04.02. Stilling Hydraulic Jump Basin												
05.01.03.04.02.01. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	7.75	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	102.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	102.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	2451.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32

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05.01. Gate Sl

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3762.00	SF	ACARC2	54.38	0.11 415	2.08 7,841	0.00	0.81	0.00	0.00	2.90 10,900	2.90
TOTAL Walls	1.00	EA			593	11,731	633	23,480	0	0	35,844	35844.42
05.01.03.04.02.02. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	88.00	CY	ULABC6	20.63	0.29 26	3.93 345	0.36	0.00	0.00	0.00	4.28 377	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	341.00	SF	ACARC1	43.75	0.09 31	1.65 563	0.00	0.83	0.00	0.00	2.49 848	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	6.66	TON	SINRRDM4	0.29	13.89 93	363.20 2,419	0.00	963.00	0.00	0.00	1326.20 8,832	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	88.00	CY	N/A	0.00	0.00 0	0.00 0	0.00	126.26	0.00	0.00	126.26 11,111	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	790.00	SF	ACHACEF11	112.50	0.01 7	0.17 137	0.00	0.00	0.00	0.00	0.17 137	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	790.00	SF	ACHACEF11	90.63	0.01 9	0.22 170	0.00	0.00	0.00	0.00	0.22 170	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	790.00	SF	ACHACEF11	78.75	0.01 10	0.25 196	0.00	0.00	0.00	0.00	0.25 196	0.25
TOTAL Base Slab	1.00	EA			175	3,830	32	17,809	0	0	21,670	21670.36
05.01.03.04.02.03. Toe Support												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.27	TON	SINRRDM4	0.38	10.67 3	278.93 75	0.00	963.00	0.00	0.00	1241.93 335	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.60	CY	N/A	0.00	0.00 0	0.00 0	0.00	126.26	0.00	0.00	126.26 455	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	3.60	CY	CLABC20	13.75	0.58 2	10.01 36	6.21	0.00	0.00	0.00	16.22 58	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	98.00	SF	ACARC2	54.38	0.11 11	2.08 204	0.00	0.81	0.00	0.00	2.90 284	2.90
TOTAL Toe Support	1.00	EA			16	316	22	794	0	0	1,132	1132.19

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.01.03.04.02.04. Chute Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.30	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
					3	84			289	0	373	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	0.40	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0			51	0	51	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.40	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					0	4	2	0	0	0	6	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	30.00	SF	ACMAACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					0	9	0	0	1	0	10	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	30.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
					3	63	0	0	24	0	87	
TOTAL Chute Blocks	1.00	EA			7	159	2		365	0	526	526.12
05.01.03.04.02.05. Baffle Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.08	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
					1	22			77	0	99	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.10	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0			139	0	139	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.10	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					1	11	7	0	0	0	18	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	96.00	SF	ACMAACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					1	28	0	0	3	0	31	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	96.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
					11	200	0	0	78	0	278	
TOTAL Baffle Blocks	1.00	EA			14	261	7		297	0	565	565.04
05.01.03.04.02.06. End Sill												
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	131.00	SF	ACMAACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					2	38	0	0	4	0	42	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	3.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					2	30	19	0	0	0	49	

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	379
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.20	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	248
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	131.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	380
TOTAL End Sill	1.00	EA			20	397	19	682	0	1,097	1097.42	
05.01.03.04.02.07. Bridge Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	31.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.40	0.00	2.05	63
CIV AA <03150 1500 > Forms in place, elev slab, flat Plate plywd 15'-20' high 4 use	588.00	SF	ACARC2	61.88	0.10	1.83	0.00	0.00	1.14	0.00	2.98	1,750
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	649.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	112
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	27.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	268
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	27.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	3,409
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.06	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	2,732
TOTAL Bridge Slab	1.00	EA			104	2,154	102	6,078	0	8,335	8334.65	
05.01.03.04.02.08. Bridge Slab Sills												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	49.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.40	0.00	2.05	100
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	25.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	4
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	2.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	253

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.12	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	
					2	44		0	116	0	159	1326.20
TOTAL Bridge Slab Sills	1.00	EA			7	141		8	387	0	536	536.12
TOTAL Stilling Hydraulic Jump Basin	1.00	EA			936	18,988		825	49,893	0	69,706	69706.33
TOTAL Stilling Basin	1.00	EA			1,581	32,172		1,507	86,416	0	120,095	120094.73
TOTAL Concrete	1.00	EA			7,097	142,218		8,136	420,896	0	571,249	571249.39
05.01.04. Rip Rap												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	283.00	CY	COFGB36C	54.38	0.09	3.39	4.02		25.96	0.00	33.37	
					26	959	1,138		7,346	0	9,443	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	1133.00	SY	ULABA2	150.00	0.02	0.41	0.15		1.38	0.00	1.93	
					23	460	167		1,564	0	2,191	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	567.00	CY	CODEB3A	9.75	0.51	10.53	6.14		24.71	0.00	41.37	
					291	5,972	3,479		14,008	0	23,459	41.37
TOTAL Rip Rap	1.00	EA			339	7,391	4,784		22,919	0	35,094	35093.79
05.01.05. Gates												
USR AA <05150 0001 > Sluice Gate 5' x 6' CI	4.00	EA	SINSE21	0.05	150.94	8914.98	1912.82		22256.00	0.00	33083.79	
					604	35,660	7,651		89,024	0	132,335	33083.79
USR AA <05150 0001 > Sluice Gate 8' x 6' CI	2.00	EA	SINSE21	0.02	462.43	27311.77	5860.08		31565.00	0.00	64736.86	
					925	54,624	11,720		63,130	0	129,474	64736.86
USR AA <05150 0001 > Slide Gate 8' x 6' SST	10.00	EA	SINSE21	0.03	313.73	18529.16	3975.66		24610.00	0.00	47114.83	
					3,137	185,292	39,757		246,100	0	471,148	47114.83
USR AA <15911 0262 > Motorized Gate Operator	16.00	EA	EELEELEC2	0.08	24.10	1233.86	0.00		1605.00	0.00	2838.86	
					386	19,742	0		25,680	0	45,422	2838.86
USR AA <05120 0001 > Gate Stem	340.00	LF	SINSE2	27.36	0.26	15.00	5.06		10.70	0.00	30.76	
					87	5,100	1,722		3,638	0	10,460	30.76
TOTAL Gates	1.00	EA			5,138	300,417	60,850		427,572	0	788,839	788838.54

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.01.11. Electrical											
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELELEEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	
					37	2,245	0	2,543	0	4,787	4787.43
USR EL <16119 0002 > Actuator Starter & Remote Cntrl's	4.00	EA	EELELEEC1	0.02	54.64	2798.09	0.00	3745.00	0.00	6543.09	
					219	13,298	0	17,798	0	31,095	7773.84
USR EL <16119 0002 > Actuator Starter & Remote Cntrl for Intake structure	12.00	EA	EELELEEC1	0.02	55.56	2844.72	0.00	4815.00	0.00	7659.72	
					667	40,558	0	68,648	0	109,206	9100.52
USR EL <16820 3580 > Stilling well w/Remote Controls	1.00	EA	EELEER19	0.01	192.31	9885.58	0.00	10700.00	0.00	20585.58	
					192	11,745	0	12,713	0	24,458	24457.72
USR EL <16820 3580 > High Head Stilling well w/Remote Controls	1.00	EA	EELEER19	0.01	378.79	19471.59	0.00	21400.00	0.00	40871.59	
					379	23,134	0	25,425	0	48,560	48559.54
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	
					0	0	0	0	832	832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELEER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	
					0	13	0	28	0	41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELELEEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	
					3	152	0	35	0	187	187.12
AF EL <16622 5230 > HID fxttr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELEER19	0.69	3.63	186.79	0.00	391.89	0.00	578.68	
					47	2,885	0	6,053	0	8,938	687.53
USR EL <16611 4100 > Compact Fluorescent	7.00	EA	EELEER19	1.00	2.50	128.51	0.00	181.90	0.00	310.41	
					18	1,069	0	1,513	0	2,582	368.80
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELEER15	0.60	10.00	499.44	85.16	214.00	0.00	798.59	
					100	5,934	1,012	2,543	0	9,488	948.81
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELEER15	0.82	7.33	365.89	62.38	903.35	0.00	1331.62	
					73	4,347	741	10,733	0	15,821	1582.10
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELEER15	3.00	2.00	99.89	17.03	460.10	0.00	577.02	
					2	119	20	547	0	686	685.56
MIL EL <16338 4400 > Safety switch, nvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELELEEC1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	
					5	295	0	612	0	907	907.16
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELELEEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	
					26	1,582	0	2,066	0	3,648	280.58

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UPO1EA



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05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEELEC1	0.12	8.47	433.94	0.00	332.77	0.00	766.71	910.93
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1099.34
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	233.70
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	107.00	0.00	224.82	267.11
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COSTR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	10.61
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	522.84
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELER19	3.38	0.30	15.17	0.00	32.53	0.00	47.70	56.67
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	6.13
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	952.34

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for IC1 & LC2	2.00	EA	EELEEEEC1	0.41	2.42	123.98	0.00	0.00	269.11	0.00	393.09	393.09
					5	295			639	0	934	467.03
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEEEC1	0.31	3.20	163.86	0.00	0.00	354.06	0.00	517.92	517.92
					3	195			421	0	615	615.34
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEEEC1	2.89	0.35	17.70	0.00	0.00	53.50	0.00	71.20	71.20
					0	21			64	0	85	84.59
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	0.00	1.12	0.00	7.29	7.29
					1	44			8	0	52	8.66
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.00	0.91	0.00	6.05	6.05
					1	86			15	0	101	7.19
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.80	0.00	5.43	5.43
					2	121			21	0	142	6.45
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.27	0.00	4.38	4.38
					38	2,335			152	0	2,487	5.20
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.16	0.00	4.27	4.27
					4	264			10	0	274	5.08
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEEEEC1	15.63	0.06	3.28	0.00	0.00	1.43	0.00	4.71	4.71
					16	989			433	0	1,422	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEEEEC1	11.63	0.09	4.40	0.00	0.00	2.18	0.00	6.59	6.59
					102	6,233			3,089	0	9,321	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEEEEC1	10.00	0.10	5.12	0.00	0.00	3.49	0.00	8.61	8.61
					9	548			373	0	921	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEEEEC1	32.50	0.03	1.58	0.00	0.00	0.57	0.00	2.14	2.14
					99	5,990			2,156	0	8,146	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEEEEC1	22.50	0.04	2.28	0.00	0.00	1.20	0.00	3.47	3.47
					56	3,407			1,794	0	5,201	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEEEEC1	15.63	0.06	3.28	0.00	0.00	1.43	0.00	4.71	4.71
					5	292			128	0	420	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEEEEC1	22.50	0.04	2.28	0.00	0.00	1.20	0.00	3.47	3.47
					24	1,433			755	0	2,188	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEEEEC1	32.50	0.03	1.58	0.00	0.00	0.57	0.00	2.14	2.14
					28	1,685			606	0	2,291	2.55

LABOR ID: C43RES EQUIP ID: C43RES

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CREW ID: NAT01A

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELELEEC1	10.00	0.10	5.12	0.00	0.00	3.49	0.00	8.61	205
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELELEEC1	11.63	0.09	4.40	0.00	0.00	2.18	0.00	6.59	39
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELELEEC1	36.25	0.03	1.41	0.00	0.00	0.39	0.00	1.80	150
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELELEEC1	32.50	0.03	1.58	0.00	0.00	0.57	0.00	2.14	2.14
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELELEEC1	0.16	6.14	314.14	0.00	0.00	44.19	0.00	358.33	29
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	BELEER20	1.24	1.05	54.01	0.00	0.00	39.80	0.00	93.82	1,338
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELELEEC1	0.13	8.00	409.64	0.00	0.00	105.93	0.00	515.57	3,414
MIL EL <16326 0100 > Panelboard&ld ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELELEEC1	1.25	0.80	40.96	0.00	0.00	10.70	0.00	51.66	123
MIL EL <16326 0310 > Panelboard&ld ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELELEEC1	1.00	1.00	51.21	0.00	0.00	20.33	0.00	71.54	170
MIL EL <16325 4390 > Panelboard assem, 42-20A brkr, main lugs, 225A, lph, 3 wire, 120/240V	1.00	EA	EELELEEC2	0.08	24.24	1241.33	0.00	0.00	727.07	0.00	1968.40	2,339
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELELEEC1	0.24	4.20	215.15	0.00	0.00	293.18	0.00	508.33	604
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELELEEC1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	1,598
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELELEEC1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	174
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELELEEC1	0.14	7.25	371.05	0.00	0.00	69.02	0.00	440.07	3,459
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELEER18	0.55	6.00	165.56	0.00	0.00	360.59	0.00	526.15	9

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	27	1,654	0.00	0.00	19.57	0.00	85.88	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEELEC1	0.63	2	81.93	0.00	0.00	69.67	0.00	151.60	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEELEC1	0.46	6	110.59	0.00	0.00	69.98	0.00	180.57	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEELEC1	0.53	2	97.53	0.00	0.00	44.60	0.00	142.13	168.87
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEELEC1	22.50	25	1,501	0.00	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3	154.28	0.00	0.00	160.50	0.00	314.78	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld NOTE: Use for 2/0 cadweld	1.00	EA	EELER19	1.94	1	66.31	0.00	0.00	19.57	0.00	85.88	102.04
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	76	2,481	0.00	0.00	3,814	0.00	5298.43	6295.07
MIL EL <16338 5510 > Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEELEC1	0.31	13	163.59	0.00	0.00	354.06	0.00	517.66	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	0.00	871.23	0.00	1299.60	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R NOTE: Use for RTU enclosure	1.00	EA	EELEELEC1	0.25	4	204.82	0.00	0.00	363.73	0.00	568.55	675.49
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1	68.30	0.00	0.00	128.40	0.00	196.70	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0	0.00	0.00	0.00	0.00	700.00	700.00	832
RSW EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	3	128.01	0.00	0.00	29.48	0.00	157.49	187.12

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1		2.00	EA	EELER19	0.21	4.85	248.57	0.00	514.97	0.00	763.54	
USR EL <13810 5471 > Surge Suppressor		1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	907.16
USR EL <13810 0001 > Limit and Rotary Switches		6.00	EA	MSHMQ20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	448.57
USR EL <13810 0002 > Push Button Stations		4.00	EA	MSHMQ20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	164.83
USR EL <16153 0016 > Cable Termination #10		128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	189.42
USR EL <16153 0014 > Cable Termination #14		12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	6.13
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex		4.00	EA	EELER15	3.38	0.30	15.17	0.00	30.82	0.00	45.99	5.14
MIL EL <16234 0160 > Wiring device, concealed, switch, 120 volt, 20 amp, SPST		2.00	EA	EELER15	1.38	0.73	37.24	0.00	9.68	0.00	46.92	54.64
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered		2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	55.75
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered		2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	736.09
USR EL <16617 3300 > Light Pole Foundation		4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	910.17
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		7.00	EA	EELER15	0.50	2.00	102.41	0.00	133.75	0.00	236.16	848.03
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0		0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	280.58
USR EL <16865 0125 > Level Gage		1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	1656.64
MIL EL <16611 3030 > Surface mtd fluor fxttr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)		4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	1620.70
USR EL <16611 0001 > Ltg fxttr, 175w Metal Halide (EH-1)		2.00	EA	EELER22	0.72	2.76	141.33	0.00	454.75	0.00	596.08	157.49

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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Eff. Date 05/31/06  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
NOTE: Use for fixture type B												
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1)	2.00	EA	EELEELEC2	0.72	2.76	141.33	0.00	0.00	454.75	0.00	596.08	
NOTE: Use for fixture type C											1,416	708.21
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall	4.00	EA	EELER19	1.08	2.33	119.55	0.00	0.00	322.07	0.00	441.62	
NOTE: Use for type D (250w Metal Halide EH9)											2,099	524.68
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood	8.00	EA	EELER22	2.88	1.62	76.18	0.00	0.00	151.62	0.00	227.80	
NOTE: Use for type E (E12)											2,165	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	0.00	8.93	
											35,240	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELEELEC1	0.07	15.15	775.83	0.00	0.00	448.33	0.00	1224.16	
											44	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELEELEC1	0.10	10.00	512.05	0.00	0.00	182.44	0.00	694.48	
											660	825.12
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEELEC1	0.17	5.75	294.28	0.00	0.00	42.80	0.00	337.08	
											65	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	0.00	3.21	0.00	10.92	
											389	12.97
USR EL <16513 2015 > Emergency Generator 35 KW	1.00	EA	EELER3	0.04	55.93	2909.80	455.26	19260.00	0.00	0.00	22625.06	
											26,881	26880.83
MIL EL <16511 1340 > Automatic transfer switch, 225 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEELEC2	0.25	8.00	409.64	0.00	4892.04	0.00	0.00	5301.68	
											6,299	6298.93
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	0.00	925.29	
											1,099	1099.34
TOTAL Electrical	1.00	EA			3,425	199,299	27,157	223,801	1,663		451,920	451920.16

05.01.15. Equipment Building

USR AA <03450 0001 > Precast Conc Building 12' x 22'  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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05. Main Outlet Structure

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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARCL	75.00	0.05	0.96	0.00	0.51	0.00	1.48	1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	1.48
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	1090.80
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEFII	112.50	0.01	0.17	0.00	0.00	0.00	0.17	17.95
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEFII	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.17
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEFII	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.22
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	0.23
TOTAL Equipment Building	1.00	JB			148	7,537	1,720	42,623	0	51,880	18.10
05.01.90. Miscellaneous											
MIL AA <03198 1050 > Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb	480.00	LF	ACARCARP1	16.25	0.06	1.23	0.00	6.26	0.00	7.49	7.49
USR AA <15115 0571 > Wall Thimble Type F	4.00	EA	MPLUPLUM1	0.30	3.33	136.01	0.00	321.00	0.00	457.01	457.01
M MIL AA <05542 0622 > Heavy Duty Steel Grating	1751.00	SF	SIWSE4	75.00	0.05	3.32	0.13	9.10	0.00	12.54	1,828
B RSM AA <05130 0450 > W8 X 31 I Beam	1240.00	LB	SINSE3	78.18	0.04	2.00	0.15	0.91	0.00	3.05	12.54
MIL AA <02752 3920 > Maintenance Ladder Rungs	152.00	EA	AMABBRIC1	5.00	0.20	4.49	0.00	13.91	0.00	18.40	3,788
B RSM AA <05130 0450 > Maintenance Ladder Posts	10.00	EA	SINSE3	1.30	2.30	119.95	8.76	321.00	0.00	449.71	18.40
					23	1,199	88	3,210	0	4,497	449.71
LABOR ID: C43RES	EQUIP ID: C43RES	Currency in DOLLARS							CREW ID: NAT01A	UPB ID: UP01EA	

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05.01. Gate S1	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
B MIL AA <05518 0010 > Maintenance Ladder Safety Cage	90.00	VLF	SIWSE4	13.12	0.30	19.00	0.72	36.38	0.00	56.10	56.10
B MIL AA <05523 0530 > 2 1/2" Dia Steel railing 42" High					27	1,710	65	3,274	0	5,049	
B MIL AA <05523 0530 > 2 1/2" Dia Steel railing 42" High	162.00	LF	SIWSE4	16.61	0.24	15.00	0.57	27.82	0.00	43.39	43.39
B MIL AA <15155 1970 > Pipe PVC sched 40 no coupling/hanger 8" dia					39	2,431	92	4,507	0	7,029	
RSM AA <05130 0450 > Trash Strut Steel	62.00	LF	MPLUQ2	3.41	0.88	34.03	0.00	10.70	0.00	44.73	44.73
					55	2,110	0	663	0	2,773	
B RSM AA <05130 0450 > 10' Dewatering Needle Beam	2042.00	LB	SIWSE3	33.13	0.09	4.72	0.34	0.40	0.00	5.46	
					185	9,635	704	808	0	11,147	
B RSM AA <05130 0450 > Needle Beam Buldhead	2.00	EA	SIWSE3	0.07	44.78	2332.74	170.43	3210.00	0.00	5713.17	5713.17
					90	4,665	341	6,420	0	11,426	
B RSM AA <05130 0450 > Needle Beam Buldhead	2.00	EA	SIWSE3	0.34	8.95	466.13	34.06	535.00	0.00	1035.19	1035.19
					18	932	68	1,070	0	2,070	
TOTAL Miscellaneous	1.00	EA			651	32,799	1,758	43,409	0	77,966	77966.16
05.01.95. Controls											
USR MC <15743 0001 > Service Gate IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	501	0	2,146	0	2,647	
USR MC <15743 0001 > Upper Level Gate IO Points	4.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	1,003	0	4,292	0	5,295	
USR MC <15743 0001 > Middle Level Gate IO Points	4.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	1,003	0	4,292	0	5,295	
USR MC <15743 0001 > Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	501	0	2,146	0	2,647	
USR MC <15743 0001 > Downstream Sampler IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	251	0	1,073	0	1,324	
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
					0	251	0	1,073	0	1,324	
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
					0	125	0	671	0	796	
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
					0	376	0	2,012	0	2,388	
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	3000.00	LF	CODBB54	90.63	0.01	0.47	0.13	0.00	0.00	0.60	0.60
					33	1,769	491	0	0	2,260	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05. Main Outlet Structure

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05.01. Gate S1		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR MC <15743 0001 > Control Conduit & Cable		3000.00	LF	EELER18	30.35	0.11 326	3.00 11,282	0.00 0	4.28 16,095	0.00 0	7.28 27,376	9.13
TOTAL Controls		1.00	EA			359	17,062	491	33,799	0	51,352	51352.13
TOTAL Gate S1		1.00	EA			17,188	708,250	105,625	1,222,229	1,663	2,037,768	2037768

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.04.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	368.00	SF	CPIDB40	95.63	0.08	3.40	1.62	16.05	0.00	21.07	
					31	1,527	729	7,211	0	9,467	25.73
TOTAL Sheet Piling	1.00	EA			31	1,527	729	7,211	0	9,467	9467.32
05.04.03. Concrete											
05.04.03.01. Conduits											
05.04.03.01.10. Typical Conduit											
05.04.03.01.10.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	270.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					79	1,060	97	0	0	1,157	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	665.00	SF	ACARCL	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					61	1,098	0	555	0	1,653	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	13.16	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					183	4,780	0	12,673	0	17,453	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	270.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	34,090	0	34,090	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	3120.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					28	541	0	0	0	541	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	3120.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					34	671	0	0	0	671	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	3120.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					40	772	0	0	0	772	0.25
TOTAL Base Slab					424	8,922	97	47,318	0	56,337	
05.04.03.01.10.02. Center Haunch											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	14.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					4	55	5	0	0	60	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	156.00	SF	ACARCL	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					14	258	0	130	0	388	2.49

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		0.70	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
						10	254	0	674	0	928	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		14.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	1,768	0	1,768	126.26
TOTAL Center Haunch						28	567	5	2,572	0	3,144	
05.04.03.01.10.03. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use												
		722.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
						66	1,192	0	286	0	1,478	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use												
		722.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
						70	1,322	0	827	0	2,149	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish												
		3120.00	SF	ACMACEF1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						28	541	0	0	0	541	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped												
		283.00	CY	CIABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	
						101	1,731	1,074	0	0	2,805	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi												
		283.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	35,732	0	35,732	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7												
		13.79	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
						192	5,008	0	13,280	0	18,288	1326.20
TOTAL Top Slab						456	9,795	1,074	50,124	0	60,992	
05.04.03.01.10.04. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7												
		7.60	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
						81	2,120	0	7,319	0	9,439	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi												
		156.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	19,697	0	19,697	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped												
		156.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
						91	1,561	969	0	0	2,530	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids												
		3744.00	SF	ACMACEF1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
						55	1,081	0	120	0	1,201	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood												
		5670.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
						625	11,817	0	4,611	0	16,428	2.90

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATOLA UPB ID: UP01EA

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Eff. Date 05/31/06  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Walls	853			969		31,746		0		49,295	
TOTAL Typical Conduit	1,760			35,863		2,145		131,760	0	169,768	
05.04.03.01.15. Conduit at Gatewell											
05.04.03.01.15.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	100.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	209.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.89	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	100.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	562.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	562.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	562.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab	134			2,871		36		17,510	0	20,416	
05.04.03.01.15.02. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	398.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	540.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	809.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	83.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	83.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATOIA UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05.04. Gate S8		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		4.03	TON SIWRRDM4		0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
TOTAL Top Slab						56	1,464	0	3,881	0	5,345	1326.20
						181	3,758	315	15,136	0	19,209	
05.04.03.01.15.03. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		4.82	TON SIWRRDM4		0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		99.00	CY N/A		0.00	0.00	0.00	0.00	126.26	0.00	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		99.00	CY CIABC20		13.75	0.58	10.01	6.21	0.00	0.00	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		960.00	SF ACMAACEF1		67.50	0.01	0.29	0.00	0.03	0.00	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		1440.00	SF ACARC2		54.38	0.11	2.08	0.00	0.81	0.00	2.90	
TOTAL Walls						282	5,614	615	18,343	0	24,572	
TOTAL Conduit at Gatewell						598	12,243	966	50,989	0	64,197	
TOTAL Conduits						2,358	48,105	3,111	182,749	0	233,965	
05.04.03.02. Gatewell		1.00	EA								233,965	233965.39
05.04.03.02.10. Gatewell												
05.04.03.02.10.01. Walls (I to Flow)												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		3.68	TON SIWRRDM4		0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		65.00	CY N/A		0.00	0.00	0.00	0.00	126.26	0.00	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		65.00	CY CIABC20		13.75	0.58	10.01	6.21	0.00	0.00	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		1176.00	SF ACMAACEF1		67.50	0.01	0.29	0.00	0.03	0.00	0.32	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05.04. Gate 38	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2496.00	SF	ACARC2	54.38	0.11 275	2.08 5,202	0.00 0	0.81 2,030	0.00 0	2.90 7,232	2.90
TOTAL Walls (I to Flow)	370			7,219	404	13,818	0		0	21,441	
05.04.03.02.10.02. Walls (II to Flow)											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.25	TON	SIWRR0DM4	0.38	10.67 24	278.93 628	0.00 0	963.00 2,167	0.00 0	1241.93 2,794	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	40.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 5,050	0.00 0	126.26 5,050	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	40.00	CY	CLABC20	13.75	0.58 23	10.01 400	6.21 248	0.00 0	0.00 0	16.22 649	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	960.00	SF	ACMACEFI1	67.50	0.01 14	0.29 277	0.00 0	0.03 31	0.00 0	0.32 308	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1440.00	SF	ACARC2	54.38	0.11 159	2.08 3,001	0.00 0	0.81 1,171	0.00 0	2.90 4,172	2.90
TOTAL Walls (II to Flow)	220			4,306	248	8,419	0		0	12,974	
05.04.03.02.10.03. Air Vent Castings											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.18	TON	SIWRR0DM4	0.38	10.67 2	278.93 50	0.00 0	963.00 173	0.00 0	1241.93 224	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.20	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 404	0.00 0	126.26 404	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	3.20	CY	CLABC20	13.75	0.58 2	10.01 32	6.21 20	0.00 0	0.00 0	16.22 52	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	104.00	SF	ACMACEFI1	67.50	0.01 2	0.29 30	0.00 0	0.03 3	0.00 0	0.32 33	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	104.00	SF	ACARC2	54.38	0.11 11	2.08 217	0.00 0	0.81 85	0.00 0	2.90 301	2.90
TOTAL Air Vent Castings	17			329	20	665	0		0	1,014	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

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05.04. Gate S8	QUANTY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL	COST	UNIT	COST
TOTAL Gatewell	607		11,854		672		22,902		0			35,429			
TOTAL Gatewell	607		11,854		672		22,902		0			35,429			
05.04.03.03. Intake															
05.04.03.03.01. Intake															
05.04.03.03.01.01. Base Slab															
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	248.00	CY	ULABC6		20.63	0.29	3.93	0.36		0.00	0.00	4.28			
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	569.00	SF	ACARC1		43.75	0.09	1.65	0.00		0.83	0.00	2.49			
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	12.89	TON	SIWRRDM4		0.29	13.89	363.20	0.00		963.00	0.00	1326.20			
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	248.00	CY	N/A		0.00	0.00	0.00	0.00		126.26	0.00	126.26			
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1541.00	SF	ACMACEF1		112.50	0.01	0.17	0.00		0.00	0.00	0.17			
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1541.00	SF	ACMACEF1		90.63	0.01	0.22	0.00		0.00	0.00	0.22			
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1541.00	SF	ACMACEF1		78.75	0.01	0.25	0.00		0.00	0.00	0.25			
TOTAL Base Slab	1.00	EA				353	7,575	89		44,200	0	51,864			
05.04.03.03.01.02. Top Girders															
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	743.00	SF	ACMACEF1		67.50	0.01	0.29	0.00		0.03	0.00	0.32			
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	8.80	CY	ULABC7		8.13	0.98	16.94	13.44		0.00	0.00	30.38			
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	8.80	CY	N/A		0.00	0.00	0.00	0.00		126.26	0.00	126.26			
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.46	TON	SIWRRDM4		0.38	10.67	278.93	0.00		963.00	0.00	1241.93			
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	608.00	SF	ACARC2		47.13	0.13	2.40	0.00		1.02	0.00	3.42			

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Top Girders	1.00	EA			102	1,954	118	2,196	0	4,268	4268.26
05.04.03.03.01.03. Top Beams											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.23	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.40	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	4.40	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	600.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	480.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
TOTAL Top Beams	1.00	EA			77	1,466	59	1,284	0	2,810	2809.61
05.04.03.03.01.04. Headwall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	3.60	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	69.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	69.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1968.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2430.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Headwall	1.00	EA			376	7,328	429	14,218	0	21,974	21974.25
05.04.03.03.01.05. Backside Intake Double Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	6.56	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA



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05.04. Gate S8										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	126.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	126.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	15,909	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1764.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	2,044	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1734.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	566	0.32
TOTAL Backside Intake Double Wall	1.00	EA			361	7,214	783	23,693	0	31,690	31689.64	
05.04.03.03.01.06. Transition To Conduit Side Curved Sections												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.51	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1,875	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	29.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	0	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	29.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	470	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	252.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	81	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	450.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	1,304	2.90
TOTAL Transition To Conduit	1.00	EA			86	1,722	180	5,490	0	7,392	7391.92	
05.04.03.03.01.07. Transition To Conduit Center Section												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.07	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	87	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	0	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16	16.22

LABOR ID: C43RES

EQUIP ID: C43RES

Crew ID: NATO1A

UPB ID: UPO1EA

Currency in DOLLARS

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8													
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	150.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32	0.32	
					2	43	0	5	0	48	48	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	150.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90	2.90	
					17	313	0	122	0	435	435	2.90	
TOTAL Transition To Conduit	1.00	EA			20	385	6	320	0	712	712	712.16	
05.04.03.03.01.08. Walls (II to Flow)													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.09	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93	1241.93	
					54	1,420	0	4,902	0	6,321	6,321	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	98.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	126.26	
					0	0	0	12,373	0	12,373	12,373	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	98.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22	16.22	
					57	981	609	0	0	1,589	1,589	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	2781.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32	0.32	
					41	803	0	89	0	892	892	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3556.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90	2.90	
					392	7,411	0	2,892	0	10,303	10,303	2.90	
TOTAL Walls (II to Flow)	1.00	EA			545	10,615	609	20,256	0	31,480	31,480	31479.99	
05.04.03.03.01.09. Divider Wall (II to Flow)													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.19	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93	1241.93	
					13	332	0	1,146	0	1,478	1,478	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	23.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	126.26	
					0	0	0	2,904	0	2,904	2,904	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	23.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22	16.22	
					13	230	143	0	0	373	373	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	873.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32	0.32	
					13	252	0	28	0	280	280	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	822.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90	2.90	
					91	1,713	0	668	0	2,382	2,382	2.90	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATOIA

UPB ID: UP01EA

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30% Submittal  
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05.04. Gate S8

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Divider Wall (II to Flow)	1.00	EA			130	2,527	143	4,746	0	7,417	7416.73
05.04.03.01.10. Center Columns											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.07	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	662.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket	1.40	CY	ULABC7	5.00	1.60	27.52	21.84	0.00	0.00	49.36	49.36
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.40	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use	662.00	SF	ACARC1	28.13	0.14	2.57	0.00	0.57	0.00	3.14	3.14
TOTAL Center Columns	1.00	EA			107	1,949	31	641	0	2,621	2620.87
05.04.03.04. Stilling Basin											
TOTAL Intake	1.00	EA			2,156	42,737	2,446	117,045	0	162,227	162227.40
TOTAL Intake	1.00	EA			2,156	42,737	2,446	117,045	0	162,227	162227.40
05.04.03.04.01. Stilling Basin Parabolic Transition											
05.04.03.04.01.01. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.79	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	75.80	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	75.80	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1820.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2730.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
	1.00	EA			434	8,589	471	17,425	0	26,485	26484.67
TOTAL Walls											
05.04.03.04.01.02. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	47.60	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	179.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.64	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	47.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	858.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	858.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	858.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab	1.00	EA			109	2,350	17	9,665	0	12,032	12031.81
05.04.03.04.01.03. Shear Key											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.28	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	4.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	98.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Shear Key	1.00	EA			16	322	25	854	0	1,202	1201.60

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.04.03.04.01.04. Top Slab												
AF AA <03150 7101 >	Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use	37.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 >	Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	37.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	858.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 >	Placing conc, elev slabs, over 10" thick, pumped	40.00	CY	CIABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	40.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	3.03	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab		1.00	EA			71	1,623	152	8,025	0	9,800	9799.80
05.04.03.04.02. Stilling Hydraulic Jump Basin												
TOTAL Stilling Basin Parabolic		1.00	EA			630	12,884	665	35,969	0	49,518	49517.89
05.04.03.04.02.01. Walls												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	7.40	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	97.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	97.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	2322.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3564.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls		1.00	EA			563	11,134	602	22,346	0	34,082	34082.27

LABOR ID: C43RES

EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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05.04. Gate S8		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
05.04.03.04.02.02. Base Slab												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	88.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	341.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	6.71	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	88.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	790.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	790.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	790.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab		1.00	EA			176	3,848	32	17,857	0	21,737	21736.67
05.04.03.04.02.03. Shear Key												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	0.28	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	4.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	98.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Shear Key		1.00	EA			16	322	25	854	0	1,202	1201.60
05.04.03.04.02.04. Chute Blocks												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	0.30	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	0.40	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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05. Main Outlet Structure

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05.04. Gate S8													
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.40	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	6	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	30.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.00	0.32	10	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	30.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	0.00	2.90	87	2.90
TOTAL Chute Blocks	1.00	EA			7	159	2	365	0	0	526		526.12
05.04.03.04.02.05. Baffle Blocks													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.08	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	0.00	1241.93	99	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.10	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	139	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.10	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	18	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	96.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.00	0.32	31	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	96.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	0.00	2.90	278	2.90
TOTAL Baffle Blocks	1.00	EA			14	261	7	297	0	0	565		565.04
05.04.03.04.02.06. End Sill													
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	131.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.00	0.32	42	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	3.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	49	16.22
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	379	126.26
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.20	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	0.00	1241.93	248	1241.93

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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05.04. Gate S8

MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	131.00 SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90
			14	273	0	107	0	380	2.90
TOTAL End Sill	1.00 EA		20	397	19	682	0	1,097	1097.42

05.04.03.04.02.07. Bridge Slab

AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use	31.00 SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05
			3	51	0	12	0	63	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	588.00 SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
			57	1,077	0	673	0	1,750	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	649.00 SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17
			6	112	0	0	0	112	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	27.00 CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91
			10	165	102	0	0	268	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	27.00 CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
			0	0	0	0	3,409	0	3,409
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.08 TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
			29	755	0	2,003	0	2,758	1326.20
TOTAL Bridge Slab	1.00 EA		104	2,161	102	6,098	0	8,361	8361.18

05.04.03.04.02.08. Bridge Slab Sills

AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use	49.00 SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05
			4	81	0	19	0	100	2.05
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	25.00 SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17
			0	4	0	0	0	4	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	2.00 CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91
			1	12	8	0	0	20	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00 CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
			0	0	0	0	253	0	253
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.12 TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
			2	44	0	116	0	159	1326.20
TOTAL Bridge Slab Sills	1.00 EA		7	141	8	387	0	536	536.12

LABOR ID: C43RES

EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA



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Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Stilling Hydraulic Jump Basin	1.00	EA			907	18,423	797	48,887	0	68,106	68106.42
TOTAL Stilling Basin	1.00	EA			1,537	31,307	1,461	84,856	0	117,624	117624.31
TOTAL Concrete	1.00	EA			6,658	134,003	7,690	407,553	0	549,246	549245.89
05.04.04. Rip Rap											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	283.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					26	959	1,138	7,346	0	9,443	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	1133.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					23	460	167	1,564	0	2,191	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	567.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
					291	5,972	3,479	14,008	0	23,459	41.37
TOTAL Rip Rap	1.00	EA			339	7,391	4,784	22,919	0	35,094	35093.79
05.04.05. Gates											
USR AA <05150 0001 > Sluice Gate 5' x 6' CI	4.00	EA	SIWSE21	0.05	150.94	8914.98	1912.82	22256.00	0.00	33083.79	33083.79
					604	35,660	7,651	89,024	0	132,335	33083.79
USR AA <05150 0001 > Sluice Gate 8' x 6' CI	2.00	EA	SIWSE21	0.02	470.59	27793.75	5963.49	31565.00	0.00	65322.24	65322.24
					941	55,587	11,927	63,130	0	130,644	65322.24
USR AA <05150 0001 > Slide Gate 8' x 6' SST	10.00	EA	SIWSE21	0.03	313.73	18529.16	3975.66	24610.00	0.00	47114.83	47114.83
					3,137	185,292	39,757	246,100	0	471,148	47114.83
USR AA <05120 0001 > Gate Stem	296.00	LF	SIWSE2	27.36	0.26	15.00	5.06	10.70	0.00	30.76	30.76
					76	4,440	1,499	3,167	0	9,106	30.76
USR AA <15911 0262 > Motorized Gate Operator	16.00	EA	EELBEEC2	0.08	24.10	1233.86	0.00	1605.00	0.00	2838.86	2838.86
					386	19,742	0	25,680	0	45,422	2838.86
TOTAL Gates	1.00	EA			5,143	300,721	60,834	427,101	0	788,656	788655.71
05.04.11. Electrical											
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELBEEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	4029.48
					37	2,245	0	2,543	0	4,787	4787.43
USR EL <16119 0002 > Actuator Starter & Remote Cntrl	4.00	EA	EELBEEC1	0.02	54.64	2798.09	0.00	3745.00	0.00	6543.09	6543.09
					219	13,298	0	17,798	0	31,095	7773.84

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0002 > Actuator Starter & Remote Cntrl for Intake structure	12.00	EA	EELER19	0.02	55.56 667	2844.72 40,558	0.00	4815.00 0	0.00	7659.72 109,206	9100.52
USR EL <16820 3580 > Stilling well w/Remote Controls	1.00	EA	EELER19	0.01	192.31 192	9885.58 11,745	0.00	10700.00 0	0.00	20585.58 24,458	24457.72
USR EL <16820 3580 > High Head Stilling well w/Remote Controls	1.00	EA	EELER19	0.01	378.79 379	19471.59 23,134	0.00	21400.00 0	0.00	40871.59 48,560	48559.54
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00 0	0.00 0	0.00	0.00 0	700.00 832	700.00 832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00 0	165.56 13	0.00	363.80 0	0.00	529.36 41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELER19	0.40	2.50 3	128.01 152	0.00	29.48 0	0.00	157.49 187	187.12
AF EL <16622 5230 > HID fxttr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63 47	186.79 2,885	0.00	391.89 0	0.00	578.68 8,938	687.53
USR EL <16611 4100 > Compact Fluorescent	7.00	EA	EELER19	1.00	2.50 18	128.51 1,069	0.00	181.90 0	0.00	310.41 2,582	368.80
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00 100	499.44 5,934	85.16 1,012	214.00 2,543	0.00	798.59 9,488	948.81
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33 73	365.89 4,347	62.38 741	903.35 10,733	0.00	1331.62 15,821	1582.10
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00 2	99.89 119	17.03 20	460.10 547	0.00	577.02 686	685.56
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELER15	0.21	4.85 5	248.57 295	0.00	514.97 0	0.00	763.54 907	907.16
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELER15	0.50	2.00 26	102.41 1,582	0.00	133.75 0	0.00	236.16 3,648	280.58
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELER15	0.12	8.47 8	433.94 516	0.00	332.77 0	0.00	766.71 911	910.93
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELER15	0.42	2.40 2	122.79 146	0.00	802.50 953	0.00	925.29 1,099	1099.34

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	233.70
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	107.00	0.00	224.82	267.11
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	10.61
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELBELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	522.84
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELBELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELBELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELBELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, and fault intrpt, 20 amp, duplex	1.00	EA	EELBELEC1	3.38	0.30	15.17	0.00	32.53	0.00	47.70	56.67
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	6.13
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand notes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	952.34
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2	2.00	EA	EELBELEC1	0.41	2.42	123.98	0.00	269.11	0.00	393.09	467.03
MIL EL <16338 5510 > Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELBELEC1	0.31	3.20	163.86	0.00	354.06	0.00	517.92	615.34

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATOLA UPB ID: UP01EA

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U.S. Army Corps of Engineers  
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30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8										TOTAL COST UNIT COST		
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16232 2483 > Wiring device, receptacle, gnd fault inrtpt, 20 amp, duplex WP		1.00	EA	EELER19	2.89	0.35	17.70	0.00	53.50	0.00	71.20	84.59
USR EL <16153 0011 > Cable Termination #4		6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	8.66
USR EL <16153 0012 > Cable Termination #6		14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0013 > Cable Termination #8		22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	6.45
USR EL <16153 0014 > Cable Termination #12		478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0016 > Cable Termination #16		54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	5.08
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv		254.00	LF	EELER19	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv		1191.00	LF	EELER19	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv		90.00	LF	EELER19	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling		3200.00	LF	EELER19	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling		1260.00	LF	EELER19	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv		75.00	LF	EELER19	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling		530.00	LF	EELER19	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling		900.00	LF	EELER19	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv		20.00	LF	EELER19	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv		5.00	LF	EELER19	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling		70.00	LF	EELER19	36.25	0.03	1.41	0.00	0.39	0.00	1.80	2.14

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEEE1	32.50	0.03 46	1.58 2,789	0.00	0.57 1,004	0.00	2.14 3,793	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEEE1	0.16	6.14 0	314.14 26	0.00	44.19 4	0.00	358.33 29	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05 13	54.01 770	0.00	39.80 567	0.00	93.82 1,338	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEEE1	0.13	8.00 45	409.64 2,713	0.00	105.93 702	0.00	515.57 3,414	612.55
MIL EL <16326 0100 > Panelboard 600V, 15 - 50A, bolt-on, 10K AIC, 1 P, 120V	2.00	EA	EELEEE1	1.25	0.80 2	40.96 97	0.00	10.70 25	0.00	51.66 123	61.38
MIL EL <16326 0310 > Panelboard 600V, 70 - 100A, bolt-on, 10K AIC, 1 P, 120V	2.00	EA	EELEEE1	1.00	1.00 2	51.21 122	0.00	20.33 48	0.00	71.54 170	84.99
MIL EL <16325 4390 > Panelboard assem, 42-20A brkr, main lugs, 225A, 1ph, 3 wire, 120/240V	1.00	EA	EELEEE2	0.08	24.24 24	1241.33 1,475	0.00	727.07 864	0.00	1968.40 2,339	2338.65
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEE1	0.24	4.20 4	215.15 256	0.00	293.18 348	0.00	508.33 604	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEE1	0.04	24.39 14	1248.90 868	0.00	1049.67 730	0.00	2298.57 1,598	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEE1	0.08	12.35 2	632.16 119	0.00	293.72 55	0.00	925.88 174	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEE1	0.14	7.25 48	371.05 2,916	0.00	69.02 542	0.00	440.07 3,459	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00 0	165.56 3	0.00	360.59 6	0.00	526.15 9	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29 27	66.31 1,654	0.00	19.57 488	0.00	85.88 2,143	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEE1	0.63	1.60 2	81.93 97	0.00	69.67 83	0.00	151.60 180	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEE1	0.46	2.16 6	110.59 394	0.00	69.98 249	0.00	180.57 644	214.54

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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05. Main Outlet Structure

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05.04. Gate S8											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEEE1	0.53	1.90	97.53	0.00	44.60	0.00	142.13	169
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEE1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	374
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld NOTE: Use for 2/0 cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEEE1	0.31	3.19	163.59	0.00	354.06	0.00	517.66	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R NOTE: Use for RTU enclosure	1.00	EA	EELEEE1	0.25	4.00	204.82	0.00	363.73	0.00	568.55	675
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	234
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	832
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEE1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	187
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEEE1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	1814
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	449
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHMQ20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	989

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8										TOTAL COST UNIT COST			
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER			
USR EL <13810 0002 > Push Button Stations		4.00	EA	MSHM20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	0.00	189.42
USR EL <16153 0016 > Cable Termination #10		128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	0.00	6.13
USR EL <16153 0014 > Cable Termination #14		12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	0.00	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex		4.00	EA	EELER19	3.38	0.30	15.17	0.00	30.82	0.00	45.99	0.00	54.64
MIL EL <16234 0160 > Wiring device, concealed, switch, 120 volt, 20 amp, SPST		2.00	EA	EELER19	1.38	0.73	37.24	0.00	9.68	0.00	46.92	0.00	55.75
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered		2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	0.00	736.09
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered		2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	0.00	910.17
USR EL <16617 3300 > Light Pole Foundation		4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	0.00	848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		7.00	EA	EELER15	0.50	2.00	102.41	0.00	133.75	0.00	236.16	0.00	280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0		0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	0.00	1656.64
USR EL <16865 0125 > Level Gage		1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	0.00	1620.70
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens		4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	0.00	157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1)		2.00	EA	EELER22	0.72	2.76	141.33	0.00	454.75	0.00	596.08	0.00	708.21
NOTE: Use for fixture type B													
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1)		2.00	EA	EELER22	0.72	2.76	141.33	0.00	454.75	0.00	596.08	0.00	708.21
NOTE: Use for fixture type C													
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall		4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	0.00	524.68
NOTE: Use for type D (250w Metal													

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
Halide EH9)												
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	13	76.18	0.00	0.00	151.62	0.00	227.80	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	358	18,289	16,951	0.00	0.00	0.00	35,240	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	ELELEEC1	0.07	15.15	775.83	0.00	0.00	448.33	0.00	1224.16	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	ELELEEC1	0.10	10.00	512.05	0.00	0.00	182.44	0.00	694.48	825.12
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	ELELEEC1	0.17	5.75	294.28	0.00	0.00	42.80	0.00	337.08	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	0.00	3.21	0.00	10.92	12.97
USR EL <16513 2015 > Emergency Generator 35 KW	1.00	EA	EELER3	0.04	55.93	2909.80	455.26	19260.00	0.00	0.00	22625.06	26880.83
MIL EL <16511 1340 > Automatic transfer switch, 225 amp, enclosed 600 volt, 3 pole	1.00	EA	ELELEEC2	0.25	8.00	409.64	0.00	4892.04	0.00	0.00	5301.68	6298.93
USR EL <16323 0001 > Terminal Box	1.00	EA	ELELEEC1	0.42	2.40	122.79	0.00	802.50	0.00	0.00	925.29	1099.34
TOTAL Electrical	1.00	EA			3.425	199,299	27,157	223,801	1,663	0.00	451,920	451920.16
05.04.15. Equipment Building												
USR AA <03450 0001 > Precast Concrete Building Note: Note: Material price from Concrete Modular Systems 727-945-1756 ATTN: Frederick Kennedy	1.00	EA	SIWSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	0.00	50586.44	50586.44
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	0.00	1.48	1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRODM4	0.29	13.89	363.20	0.00	727.60	0.00	0.00	1090.80	1090.80
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 max 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



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U.S. Army Corps of Engineers  
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30% Submittal  
05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	0.00	17.95	17.95
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACMAEFIL	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACMAEFIL	90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACMAEFIL	84.38	0.01	0.23	0.00	0.00	0.00	0.00	0.23	0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODEB10N	47.50	0.03	1.07	0.77	16.26	0.00	0.00	18.10	18.10
TOTAL Equipment Building	1.00	JB			148	7,537	1,720	42,623	0	0	51,880	51880.06

05.04.90. Miscellaneous

MIL AA <03198 1050 > Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb	480.00	LF	ACARCARP1	16.25	0.06	1.23	0.00	6.26	0.00	0.00	7.49	7.49
USR AA <15115 0571 > Wall Thimble Type F	4.00	EA	MFLUPLUM1	0.30	3.33	136.01	0.00	321.00	0.00	0.00	457.01	457.01
M MIL AA <05542 0622 > Heavy Duty Steel Grating	1751.00	SF	SIWSE4	75.00	0.05	3.32	0.13	9.10	0.00	0.00	12.54	12.54
B RSM AA <05130 0450 > W8 X 31 I Beam	1240.00	LB	SIWSE3	78.18	0.04	2.00	0.15	0.91	0.00	0.00	3.05	3.05
MIL AA <02752 3920 > Maintenance Ladder Rungs	135.00	EA	AMABBRIC1	5.00	0.20	4.49	0.00	13.91	0.00	0.00	18.40	18.40
B RSM AA <05130 0450 > Maintenance Ladder Posts	10.00	EA	SIWSE3	1.30	2.30	119.95	8.76	321.00	0.00	0.00	449.71	449.71
B MIL AA <05518 0010 > Maintenance Ladder Safety Cage	76.00	VLF	SIWSE4	13.12	0.30	19.00	0.72	36.38	0.00	0.00	56.10	56.10
B MIL AA <05523 0530 > 2 1/2" Dia Steel railing 42" High	162.00	LF	SIWSE4	16.61	0.24	15.00	0.57	27.82	0.00	0.00	43.39	43.39
B MIL AA <15155 1970 > Pipe PVC sched 40 no coupling/hanger 8" dia	54.00	LF	MFLUQ2	3.41	0.88	34.03	0.00	10.70	0.00	0.00	44.73	44.73

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

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05. Main Outlet Structure

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05.04. Gate S8	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
RSM AA <05130 0450 > Trash Strut Steel	2042.00	LB	SINSE3	33.13	0.09 185	4.72 9,635	0.34 704	0.40 808	0.00	5.46 11,147	5.46
B RSM AA <05130 0450 > 10' Dewatering Needle Beam	2.00	EA	SINSE3	0.07	44.78 90	2332.74 4,665	170.43 341	3210.00 6,420	0.00	5713.17 11,426	5713.17
B RSM AA <05130 0450 > Needle Beam Buldhead	2.00	EA	SINSE3	0.34	8.95 18	466.13 932	34.06 68	535.00 1,070	0.00	1035.19 2,070	1035.19
TOTAL Miscellaneous	1.00	EA			636	32,185	1,748	42,577	0	76,510	76510.24
05.04.95. Controls											
USR MC <15743 0001 > Dewatering Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Upper Level Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Middle Level Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Upstream Downstream Level IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Downstream Sampler IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	16000	LF	CODBE54	90.63	0.01 176	0.47 9,436	0.13 2,617	0.00 0	0.00	0.60 12,054	0.75
USR MC <15743 0001 > Control Conduit & Cable	16000	LF	EELER18	30.35	0.11 1,739	3.00 60,168	0.00	4.28 85,840	0.00	7.28 146,008	9.13
TOTAL Controls	1.00	EA			1,915	71,610	2,617	94,960	0	169,187	169187.40
TOTAL Gate S8	1.00	EA			18,296	754,273	107,279	1,268,744	1,663	2,131,961	2131961

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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05. Main Outlet Structure

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05.04. Gate S8											
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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
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TOTAL Main Outlet Structure	1.00	EA			35,484	1,462,524	212,904	2,490,973	3,327	4,169,728	4169728
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06. Balancing Structure

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06. Balancing Structure												
06.01. Gate S12												
06.01.03. Concrete												
06.01.03.01. Conduits												
06.01.03.01.10. Typical Conduit												
06.01.03.01.10.01. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	372.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	4.28
					108	1,460	133	0	0	0	1,594	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	673.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	0.00	2.49	2.49
					62	1,111	0	562	0	0	1,673	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	18.61	TON	SINWRD04	0.29	13.89	363.20	0.00	963.00	0.00	0.00	1326.20	1326.20
					258	6,759	0	17,921	0	0	24,681	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	372.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	126.26
					0	0	0	46,969	0	0	46,969	
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	4380.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
					39	759	0	0	0	0	759	
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	4380.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	0.22
					48	942	0	0	0	0	942	
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	4380.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.00	0.25	0.25
					56	1,084	0	0	0	0	1,084	
TOTAL Base Slab					571	12,116	133	65,452	0	0	77,701	
06.01.03.01.10.02. Center Haunch												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	27.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	4.28
					8	106	10	0	0	0	116	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	292.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	0.00	2.49	2.49
					27	482	0	244	0	0	726	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	1.35	TON	SINWRD04	0.29	13.89	363.20	0.00	963.00	0.00	0.00	1326.20	1326.20
					19	490	0	1,300	0	0	1,790	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	27.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	126.26
					0	0	0	3,409	0	0	3,409	
TOTAL Center Haunch					53	1,078	10	4,953	0	0	6,041	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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30% Submittal  
06. Balancing Structure

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
06.01.03.01.10.03. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use	728.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05		2.05
					67	1,202	0	288	0	1,490		2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	4380.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98		2.98
					425	8,022	0	5,015	0	13,037		2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	4380.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17		0.17
					39	759	0	0	0	759		0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	389.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91		9.91
					138	2,379	1,476	0	0	3,856		9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	389.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		126.26
					0	0	0	49,115	0	49,115		126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	19.49	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20		1326.20
					271	7,079	0	18,769	0	25,848		1326.20
TOTAL Top Slab					939	19,441	1,476	73,187	0	94,104		
06.01.03.01.10.04. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	9.75	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		1241.93
					104	2,720	0	9,389	0	12,109		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	195.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		126.26
					0	0	0	24,621	0	24,621		126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	195.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		16.22
					113	1,952	1,211	0	0	3,163		16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	5256.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32		0.32
					78	1,518	0	169	0	1,687		0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	7080.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		2.90
					781	14,756	0	5,757	0	20,514		2.90
TOTAL Walls					1,076	20,945	1,211	39,936	0	62,093		
TOTAL Typical Conduit					2,640	53,581	2,831	183,528	0	239,939		

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.01.15. Conduit at Gatewell											
06.01.03.01.15.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	145.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					42	569	52	0	0	621	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	209.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					19	345	0	174	0	520	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	7.24	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					101	2,630	0	6,972	0	9,602	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	145.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	18,308	0	18,308	
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	882.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					8	153	0	0	0	153	
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	882.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					10	190	0	0	0	190	
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	882.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
					11	218	0	0	0	218	
TOTAL Base Slab					191	4,105	52	25,454	0	29,611	
06.01.03.01.15.02. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	513.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
					47	847	0	203	0	1,050	
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	513.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
					50	940	0	587	0	1,527	
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1296.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					12	225	0	0	0	225	
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	121.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					43	740	459	0	0	1,199	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	121.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	15,277	0	15,277	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	6.01	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					83	2,183	0	5,788	0	7,970	
TOTAL Top Slab					235	4,934	459	21,856	0	27,249	

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.01.15.03. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	7.24	TON	SINRR0DM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	145.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	145.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1440.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1920.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
TOTAL Walls					395	7,888	901	26,887	0	0	35,676	
TOTAL Conduit at Gatewell					820	16,927	1,412	74,197	0	0	92,536	
TOTAL Conduits	1.00	EA			3,460	70,508	4,242	257,725	0	0	332,475	332474.88
06.01.03.02. Gatewell												
06.01.03.02.10. Gatewell												
06.01.03.02.10.01. Walls (I to Flow)												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	6.55	TON	SINRR0DM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	110.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	110.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1980.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	4125.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
TOTAL Walls (I to Flow)					618	12,097	683	23,614	0	0	36,395	

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.02.10.02. Walls (II to Flow)												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	3.64	TON	SINPRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
					39	1,015			3,505	0	4,521	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	61.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0			7,702	0	7,702	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	61.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					35	611	379	0	0	0	989	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1650.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					24	477	0	0	53	0	529	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2200.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
					243	4,585	0	0	1,789	0	6,374	
TOTAL Walls (II to Flow)					341	6,688	379		13,049	0	20,116	
06.01.03.02.10.03. Air Vent Castings												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.34	TON	SINPRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
					4	95			327	0	422	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	6.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0			758	0	758	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	6.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					3	60	37	0	0	0	97	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	358.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					5	103	0	0	11	0	115	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	358.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
					39	746	0	0	291	0	1,037	
TOTAL Air Vent Castings					52	1,004	37		1,388	0	2,429	
TOTAL Gatewell					1,011	19,789	1,099		38,051	0	58,939	
TOTAL Gatewell					1,011	19,789	1,099		38,051	0	58,939	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA



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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.04. Stilling Basin 1											
06.01.03.04.01. Stilling Basin Parabolic Transition											
06.01.03.04.01.01. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.17	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	64.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	64.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1728.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2304.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls	1.00	EA			361	7,105	397	14,025	0	21,528	21527.67
06.01.03.04.01.02. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	74.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	219.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.83	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	74.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1221.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1221.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1221.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab	1.00	EA			148	3,183	27	14,177	0	17,387	17386.61

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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06.01. Gate 312	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.04.01.03. Shear Key											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.35	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	435
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	631
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	5.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	81
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	144.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	417
TOTAL Shear Key	1.00	EA			23	448	31	1,085	0	1,564	1564.30
06.01.03.04.01.04. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	184.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	377
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	840.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2,500
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1416.00	SF	ACMACEF1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	245
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	75.00	CY	CIABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	743
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	75.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	9,470
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.87	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	6,459
TOTAL Top Slab	1.00	EA			205	4,315	285	15,194	0	19,794	19793.68
06.01.03.04.02. Stilling Basin Parabolic											
TOTAL Stilling Basin Parabolic	1.00	EA			738	15,050	740	44,482	0	60,272	60272.25
06.01.03.04.02.01. Exterior Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.83	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	2,273

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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		QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL	COST	UNIT	COST
06.01. Gate S12																
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		28.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	3,535	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		28.00	CY	CLABC20		13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	454	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		504.00	SF	ACWACEFI1		67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	162	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		1035.00	SF	ACARC2		54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2,999	2.90	
TOTAL Exterior Walls		1.00	EA				157	3,093	174	6,155	0	0	9,423	9422.70		
06.01.03.04.02.02. Interior Short Walls																
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.21	TON	SINPRODM4		0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	261	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		3.20	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	404	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		3.20	CY	CLABC20		13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	52	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		144.00	SF	ACWACEFI1		67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	46	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		144.00	SF	ACARC2		54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	417	2.90	
TOTAL Interior Short Walls		1.00	EA				22	432	20	728	0	0	1,180	1180.18		
06.01.03.04.02.03. Base Slab																
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute		120.00	CY	ULABC6		20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	514	4.28	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		396.00	SF	ACARC1		43.75	0.09	1.65	0.00	0.83	0.00	0.00	2.49	984	2.49	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		7.83	TON	SINPRODM4		0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	10,384	1326.20	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		120.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	15,151	126.26	

Currency in DOLLARS

LABOR ID: C43RES

EQUIP ID: C43RES

CREW ID: NAT01A

UPB ID: UP01EA

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06.01. Gate S12		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		1080.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
						10	187	0	0	0	187	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish		1080.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
						12	232	0	0	0	232	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish		1080.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
						14	267	0	0	0	267	0.25
TOTAL Base Slab		1.00	EA			215	4,656	43	23,022	0	27,721	27720.55
06.01.03.04.02.04. End Wall & Toe Support												
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		342.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						5	99	0	11	0	110	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		35.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						20	350	217	0	0	568	16.22
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		35.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	4,419	0	4,419	126.26
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		2.26	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						24	630	0	2,176	0	2,807	1241.93
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		988.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						109	2,059	0	803	0	2,863	2.90
TOTAL End Wall & Toe Support		1.00	EA			159	3,139	217	7,410	0	10,766	10765.93
06.01.03.04.02.05. Chute Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.04	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						0	11	0	39	0	50	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		0.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	76	0	76	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		0.60	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						0	6	4	0	0	10	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		45.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						1	13	0	1	0	14	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		45.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						5	94	0	37	0	130	2.90

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Chute Blocks	1.00	EA		6	124	4	152	0	280	279.99		
06.01.03.04.02.06. Baffle Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.10	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					1	28	0	96	0	124	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	202	0	202	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.60	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					1	16	10	0	0	26	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	144.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32		
					2	42	0	5	0	46	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	144.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		
					16	300	0	117	0	417	2.90	
TOTAL Baffle Blocks	1.00	EA		20	386	10	420	0	816	815.60		
TOTAL Stilling Hydraulic Jump Basin												
	1.00	EA		580	11,829	468	37,888	0	50,185	50184.94		
TOTAL Stilling Basin 1	1.00	EA		1,317	26,880	1,208	82,370	0	110,457	110457.19		
06.01.03.05. Stilling Basin 2												
06.01.03.05.01. Stilling Basin Parabolic Transition												
06.01.03.05.01.01. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.17	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					44	1,163	0	4,016	0	5,179	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	64.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	8,081	0	8,081	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	64.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					37	641	397	0	0	1,038	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1728.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32		
					26	499	0	55	0	555	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2304.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		
					254	4,802	0	1,874	0	6,676	2.90	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Walls	1.00	EA			361	7,105	397	14,025	0	21,528	21527.67
06.01.03.05.01.02. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	74.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					22	290	27	0	0	317	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	219.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					20	362	0	183	0	544	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.83	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					67	1,754	0	4,651	0	6,406	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	74.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	9,343	0	9,343	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1221.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					11	212	0	0	0	212	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1221.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					13	263	0	0	0	263	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1221.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					16	302	0	0	0	302	0.25
TOTAL Base Slab	1.00	EA			148	3,183	27	14,177	0	17,387	17386.61
06.01.03.05.01.03. Shear Key											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.35	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					4	98	0	337	0	435	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	631	0	631	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	5.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					3	50	31	0	0	81	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	144.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					16	300	0	117	0	417	2.90
TOTAL Shear Key	1.00	EA			23	448	31	1,085	0	1,564	1564.30

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.05.01.04. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	184.00	SF	ACARC1	43.75	17	1.65	0.00	0.40	0.00	2.05	377
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	840.00	SF	ACARC2	61.88	81	1.83	0.00	1.14	0.00	2.98	2,500
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1416.00	SF	ACWACEF11	112.50	13	0.17	0.00	0.00	0.00	0.17	245
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	75.00	CY	CLABC20	22.50	27	6.12	3.80	0.00	0.00	9.91	743
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	75.00	CY	N/A	0.00	0	0	0	126.26	0.00	126.26	9,470
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.87	TON	SIWRRODM4	0.29	68	1,769	0	963.00	0.00	1326.20	6,459
TOTAL Top Slab	1.00	EA			205	4,315	285	15,194	0	19,794	19793.68
TOTAL Stilling Basin Parabolic											
06.01.03.05.02. Stilling Hydraulic Jump Basin	1.00	EA			738	15,050	740	44,482	0	60,272	60272.25
06.01.03.05.02.01. Exterior Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.83	TON	SIWRRODM4	0.38	20	510	0	963.00	0.00	1241.93	2,273
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	28.00	CY	N/A	0.00	0	0	0	126.26	0.00	126.26	3,535
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	28.00	CY	CLABC20	13.75	16	10.01	6.21	0.00	0.00	16.22	454
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	504.00	SF	ACWACEF11	67.50	7	0.29	0.00	0.03	0.00	0.32	162
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1035.00	SF	ACARC2	54.38	114	2.08	0.00	0.81	0.00	2.90	2,999
TOTAL Exterior Walls	1.00	EA			157	3,093	174	6,155	0	9,423	9422.70

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.05.02.02. Interior Short Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.21	TON	SINRR0D4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	261
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.20	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	404
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	3.20	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	52
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	144.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	46
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	144.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	417
TOTAL Interior Short Walls	1.00	EA			22	432	20		728	0	1,180	1180.18
06.01.03.05.02.03. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	120.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	514
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	396.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.83	0.00	2.49	984
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	7.83	TON	SINRR0D4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	10,384
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	120.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	15,151
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1080.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	187
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1080.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	232
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1080.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.00	0.25	267
TOTAL Base Slab	1.00	EA			215	4,656	43		23,022	0	27,721	27720.55

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA



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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01.03.05.02.04. End Wall & Toe Support											
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	342.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
					5	99	0	11	0	110	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	35.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					20	350	217	0	0	568	16.22
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	35.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	4,419	0	4,419	126.26
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.26	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					24	630	0	2,176	0	2,807	1241.93
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	988.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					109	2,059	0	803	0	2,863	2.90
TOTAL End Wall & Toe Support	1.00	EA			159	3,139	217	7,410	0	10,766	10765.93
06.01.03.05.02.05. Chute Blocks											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.04	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					0	11	0	39	0	50	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	0.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	76	0	76	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.60	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					0	6	4	0	0	10	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	45.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
					1	13	0	1	0	14	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	45.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					5	94	0	37	0	130	2.90
TOTAL Chute Blocks	1.00	EA			6	124	4	152	0	280	279.99
06.01.03.05.02.06. Baffle Blocks											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.10	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					1	28	0	96	0	124	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.60	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	202	0	202	126.26

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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06.01. Gate S12

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.60	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	144.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	144.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Baffle Blocks	1.00	EA			20	386	10	420	0	816	815.60
TOTAL Stilling Hydraulic Jump Basin	1.00	EA			580	11,829	468	37,888	0	50,185	50184.94
TOTAL Stilling Basin 2	1.00	EA			1,317	26,880	1,208	82,370	0	110,457	110457.19
TOTAL Concrete	1.00	EA			7,105	144,057	7,757	450,515	0	612,329	612328.75
06.01.05. Gates											
USR AA <05150 0001 > Sluice Gate 5' x 6' CI	6.00	EA	SIWSE21	0.05	150.94	8914.98	1912.82	22256.00	0.00	33083.79	33083.79
USR AA <05120 0001 > Gate Stem	183.00	LF	SIWSE2	27.36	0.26	15.00	5.06	10.70	0.00	30.76	30.76
USR AA <15911 0262 > Motorized Gate Operator	6.00	EA	EELSELEC2	0.08	24.10	1233.86	0.00	1605.00	0.00	2838.86	2838.86
TOTAL Gates	1.00	EA			1,097	63,638	12,404	145,124	0	221,166	221165.67
06.01.11. Electrical											
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELSELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	4029.48
USR EL <16119 0002 > Actuator Starter & Remote Contrls	6.00	EA	EELSELEC1	0.02	54.35	2782.88	0.00	3745.00	0.00	6527.88	6527.88
USR EL <16820 3580 > High Head Stilling well w/Remote Controls	2.00	EA	EELER19	0.01	357.14	18358.93	0.00	21400.00	0.00	39758.93	39758.93
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS			0.00	0.00	0.00	0.00	0.00	700.00	700.00
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	529.36

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	157.49
AF EL <16622 5230 > HID fxtr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00	391.89	0.00	578.68	187.12
USR EL <16611 4100 > Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00	181.90	0.00	310.41	310.41
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44	85.16	214.00	0.00	798.59	798.59
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89	62.38	903.35	0.00	1331.62	1331.62
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89	17.03	460.10	0.00	577.02	577.02
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEELEC1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	763.54
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	236.16
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEELEC1	0.12	8.47	433.94	0.00	332.77	0.00	766.71	766.71
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	925.29
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	196.70
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	107.00	0.00	224.82	224.82
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	8.93
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	440.07

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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06.01. Gate S12		QUANTITY	DOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-IHNN, copper, stranded, #10	3.24	MLF	EELEEELEC1		0.13	8.00	409.64	0.00	105.93	0.00	515.57		
							26	1,574		407		1,982		612.55
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-IHNN, copper, stranded, #6	1.55	MLF	EELEEELEC1		0.08	12.35	632.16	0.00	293.72	0.00	925.88		
							19	1,164		541		1,705		1100.03
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-IHNN, copper, stranded, 1/0	0.08	MLF	EELEEELEC1		0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57		
							2	111		94		205		2730.93
MIL EL <16232 2482 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEELEC1		3.38	0.30	15.17	0.00	32.53	0.00	47.70		
							0	18		39		57		56.67
USR EL <16153 0014 >	Cable Termination #12	50.00	EA	EELER19		31.25	0.08	4.11	0.00	0.27	0.00	4.38		
							4	244		16		260		5.20
USR EL <16153 0013 >	Cable Termination #10	90.00	EA	EELER19		27.78	0.09	4.63	0.00	0.54	0.00	5.16		
							8	495		57		552		6.13
USR EL <16153 0012 >	Cable Termination #6	8.00	EA	EELER19		25.00	0.10	5.14	0.00	0.91	0.00	6.05		
							1	49		9		58		7.19
USR EL <16153 0010 >	Cable Termination #1/0	12.00	EA	EELER19		16.67	0.15	7.71	0.00	3.21	0.00	10.92		
							2	110		46		156		12.97
MIL EL <16711 0500 >	Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3		0.31	7.99	415.55	65.02	321.00	0.00	801.57		
							8	494		381		952		952.34
MIL EL <16333 0620 >	Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2	2.00	EA	EELEEELEC1		0.41	2.42	123.98	0.00	269.11	0.00	393.09		
							5	235		639		934		467.03
MIL EL <16338 5510 >	Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEELEC1		0.31	3.20	163.86	0.00	354.06	0.00	517.92		
							3	195		421		615		615.34
USR EL <16232 2483 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEELEC1		2.89	0.35	17.70	0.00	53.50	0.00	71.20		
							0	21		64		85		84.59
USR EL <16153 0011 >	Cable Termination #4	6.00	EA	EELER19		20.83	0.12	6.17	0.00	1.12	0.00	7.29		
							1	44		8		52		8.66
USR EL <16153 0012 >	Cable Termination #6	14.00	EA	EELER19		25.00	0.10	5.14	0.00	0.91	0.00	6.05		
							1	86		15		101		7.19
USR EL <16153 0013 >	Cable Termination #8	22.00	EA	EELER19		27.78	0.09	4.63	0.00	0.80	0.00	5.43		
							2	121		21		142		6.45
USR EL <16153 0014 >	Cable Termination #12	478.00	EA	EELER19		31.25	0.08	4.11	0.00	0.27	0.00	4.38		
							38	2,335		152		2,487		5.20

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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USR EL <16153 0016 >	Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	5.08
MIL EL <16018 0520 >	Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELER19	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELER19	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELER19	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16712 1030 >	Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELER19	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELER19	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16018 0520 >	Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELER19	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELER19	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELER19	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELER19	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELER19	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16712 1020 >	Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELER19	36.25	0.03	1.41	0.00	0.39	0.00	1.80	2.14
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELER19	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
RSM EL <16119 0920 >	Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELER19	0.16	6.14	314.14	0.00	44.19	0.00	358.33	425.73
CIV EL <16153 0320 >	Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	111.46
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELER19	0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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06.01. Gate S12

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16326 0100 > Panelboard&ld ctr ckt brkr,15 - 50A,bolt-on,10K AIC,1 P,120V	2.00	EA	EELBEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	61.38
MIL EL <16326 0310 > Panelboard&ld ctr ckt brkr,70 - 100A,bolt-on,10K AIC,1 P,120V	2.00	EA	EELBEELEC1	1.00	1.00	51.21	0.00	20.33	0.00	71.54	84.99
MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for distribution panel L	1.00	EA	EELBEELEC1	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1258.36
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELBEELEC1	0.24	4.20	215.15	0.00	293.18	0.00	508.33	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELBEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELBEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELBEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELBEELEC1	0.63	1.60	81.93	0.00	69.67	0.00	151.60	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELBEELEC1	0.46	2.16	110.59	0.00	69.98	0.00	180.57	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELBEELEC1	0.53	1.90	97.53	0.00	44.60	0.00	142.13	168.87
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELBEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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06.01. Gate S12

NOTE: Use for 2/0 cadweld

USR EL <16000 0001 > Concrete antennae pole  
NOTE: Includes foundation,  
ground rod, ground cable,  
conduit, etc.

MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp,  
w/ fuse, 600 volt, 3 pole NEMA  
3R

MIL EL <16313 9650 > Motor starter & cont, NEMA 1,  
size 1, comb, rev, w/disc switch

CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x  
12"D, sheet met, dbl dr, NEMA  
3R

NOTE: Use for RTU enclosure

USR EL <16333 1401 > Photo-cell

USR EL <16711 0011 > Meter Connection by Utility

RSM EL <16324 0100 > Meter centers & sockets, 4 term,  
100 A, socket, 1 position

MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp,  
w/ fuse, 600 volt, 3 pole NEMA 1

USR EL <13810 5471 > Surge Suppressor

USR EL <13810 0001 > Limit and Rotary Switches

USR EL <13810 0002 > Push Button Stations

USR EL <16153 0016 > Cable Termination #10

USR EL <16153 0014 > Cable Termination #14

AF EL <16232 2480 > Wiring device, receptacle, gnd  
fault intrpt, 15 amp, duplex

MIL EL <16234 0160 > Wiring device, concealed switch,  
120 volt, 20 amp, SPST

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69 76	2088.43 2,481	0.00	3210.00 3,814	0.00 0	5298.43 6,295	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEELEC1	0.31	3.19 13	163.59 777	0.00	354.06 1,683	0.00 0	517.66 2,460	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33 17	428.38 1,018	0.00	871.23 2,070	0.00 0	1299.60 3,088	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R	1.00	EA	EELEELEC1	0.25	4.00 4	204.82 243	0.00	363.73 432	0.00 0	568.55 675	675.49
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33 1	68.30 81	0.00	128.40 153	0.00 0	196.70 234	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00 0	0.00 0	0.00	0.00 0	700.00 832	700.00 832	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	2.50 3	128.01 152	0.00	29.48 35	0.00 0	157.49 187	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEELEC1	0.21	4.85 10	248.57 591	0.00	514.97 1,224	0.00 0	763.54 1,814	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26 5	270.55 321	0.00	107.00 127	0.00 0	377.55 449	448.57
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHMQ20	0.59	4.23 25	111.98 798	0.00	26.75 191	0.00 0	138.73 989	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHMQ20	0.63	4.00 16	105.93 503	0.00	53.50 254	0.00 0	159.43 758	189.42
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09 12	4.63 704	0.00	0.54 81	0.00 0	5.16 785	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08 1	4.11 59	0.00	0.21 3	0.00 0	4.33 62	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEELEC1	3.38	0.30 1	15.17 72	0.00	30.82 146	0.00 0	45.99 219	54.64
MIL EL <16234 0160 > Wiring device, concealed switch, 120 volt, 20 amp, SPST	2.00	EA	EELEELEC1	1.38	0.73 1	37.24 88	0.00	9.68 23	0.00 0	46.92 111	55.75

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06.01. Gate S12		QUANTITY UOM CREW ID				OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16617 3000 >	Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	0.00	619.55	736.09
MIL EL <16617 3500 >	Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	0.00	766.07	910.17
USR EL <16617 3300 >	Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	0.00	713.77	848.03
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELER15	0.50	2.00	102.41	0.00	133.75	0.00	0.00	236.16	280.58
MIL EL <16181 6020 >	Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	0.00	1394.36	1656.64
USR EL <16865 0125 >	Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	0.00	1364.11	1620.70
MIL EL <16611 3030 >	Surface mtd fluor fxttr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	0.00	132.55	157.49
USR EL <16611 0001 >	Ltg fxttr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELER19	0.72	2.76	141.33	0.00	454.75	0.00	0.00	596.08	708.21
B USR EL <16622 3010 >	Ltg fxttr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELER19	0.72	2.76	141.33	0.00	454.75	0.00	0.00	596.08	708.21
MIL EL <16622 3060 >	Ltg, HID fxttr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	0.00	441.62	524.68
MIL EL <16611 4120 >	Ltg fxttr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	0.00	227.80	270.65
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	0.00	8.93	10.61
MIL EL <16119 1400 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELER19	0.07	15.15	775.83	0.00	448.33	0.00	0.00	1224.16	1454.43
MIL EL <16119 1300 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELER19	0.10	10.00	512.05	0.00	182.44	0.00	0.00	694.48	825.12

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA



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06.01. Gate S12

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEEE1	0.17	5.75	294.28	0.00	42.80	0.00	337.08	337.08
					1	57		8	0	65	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	10.92
					5	275		114	0	389	12.97
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	21112.59
					40	2,453	384	22,247	0	25,084	25083.87
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEE1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	3422.39
					6	374		3,692	0	4,066	4066.14
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEE1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	925.29
					2	146		953	0	1,099	1099.34
TOTAL Electrical	1.00	EA			2,979	172,184	27,000	173,653	1,663	374,501	374501.11

06.01.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

1.00	EA	SINSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	50586.44	50586.44
				130	7,180	1,676	41,730	0	50,586	50586.44

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use

68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	1.48	1.48
				4	65		35	0	100	1.48

MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7

0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	1090.80
				3	73		146	0	218	1090.80

M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi

5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
				0	0		631	0	631	126.26

MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket

5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	17.95
				3	50	40	0	0	90	17.95

MIL AA <03396 0010 > Finishing floors, monolithic, screed finish

264.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
				2	46		0	0	46	0.17

MIL AA <03396 0100 > Finishing floors, monolithic, float finish

264.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
				3	57		0	0	57	0.22

MIL AA <03396 0150 > Finishing floors, monolithic, broom finish

264.00	SF	ACWACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.23
				3	61		0	0	61	0.23

MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY  
NOTE: Use for granular fill

5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	18.10
				0	5	4	81	0	90	18.10

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
06.01. Gate S12		1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
under precast building												
TOTAL Equipment Building		1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
06.01.90. Miscellaneous												
MIL AA <03198 1050 >	Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb	588.00	LF	ACARCARE1	16.25	0.06	1.23	0.00	6.26	0.00	7.49	7.49
USR AA <15115 0571 >	Wall Thimble Type F	6.00	EA	MFLUPLUM1	0.30	3.33	136.01	0.00	321.00	0.00	457.01	457.01
M MIL AA <05542 0622 >	Heavy Duty Steel Grating	300.00	SF	SIWSE4	75.00	0.05	3.32	0.13	9.10	0.00	12.54	12.54
B RSM AA <05130 0450 >	W8 X 31 I Beam	1860.00	LB	SIWSE3	78.18	0.04	2.00	0.15	0.91	0.00	3.05	3.05
MIL AA <02752 3920 >	Maintenance Ladder Rungs	99.00	EA	ANABBRIC1	5.00	0.20	4.49	0.00	13.91	0.00	18.40	18.40
B RSM AA <05130 0450 >	Maintenance Ladder Posts	4.00	EA	SIWSE3	1.30	2.30	119.95	8.76	321.00	0.00	449.71	449.71
B MIL AA <05518 0010 >	Maintenance Ladder Safety Cage	71.00	VLF	SIWSE4	13.12	0.30	19.00	0.72	36.38	0.00	56.10	56.10
B MIL AA <05523 0530 >	2 1/2" Dia Steel railing 42" High	62.00	LF	SIWSE4	16.61	0.24	15.00	0.57	27.82	0.00	43.39	43.39
B MIL AA <15155 1970 >	Pipe PVC sched 40 no coupling/hanger 8" dia	58.00	LF	MFLUQ2	3.41	0.88	34.03	0.00	10.70	0.00	44.73	44.73
RSM AA <05130 0450 >	Trash Strut Steel	7365.00	LB	SIWSE3	33.13	0.09	4.72	0.34	0.40	0.00	5.46	5.46
TOTAL Miscellaneous		1.00	EA			927	46,184	2,969	20,532	0	69,686	69686.72
06.01.95. Controls												
USR MC <15743 0001 >	Service Gate IO Points	3.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 >	Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 >	Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00

LABOR ID: C43RES EQUIP ID: C43RES

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06.01. Gate S12	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	795.97
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	2387.92
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	16000	LF	CODBB54	90.63	176	9,436	2,617	0.00	0.00	12,054	0.75
USR MC <15743 0001 > Control Conduit & Cable	16000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	9.13
TOTAL Controls	1.00	EA		1,915	1,739	60,168	0	85,840	0	146,008	169187.40
TOTAL Gate S12	1.00	EA		14,172	505,210	54,467	937,408	1,663	1,498,749	1498749	
TOTAL Balancing Structure	1.00	EA		14,172	505,210	54,467	937,408	1,663	1,498,749	1498749	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
CIV AA <02228 0392 > Excavate, mdm soil, 3CY excavator	3345.00	CY	CODEB12Y	288.50	0.01	0.39	0.31	0.00	0.00	0.70	
					35	1,289	1,040	0	0	2,329	0.70
TOTAL Excavation	1.00	JB			35	1,289	1,040	0	0	2,329	2328.79
07.01.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	4453.00	SF	CPIDB40	95.63	0.08	3.40	1.62	16.05	0.00	21.07	
					373	18,483	8,825	87,251	0	114,560	25.73
TOTAL Sheet Piling	1.00	EA			373	18,483	8,825	87,251	0	114,560	114559.69
07.01.03. Concrete											
07.01.03.01. Slab On Grade											
07.01.03.01.01. Bottom Slab At Culvert											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	39.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					11	153	14	0	0	167	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	184.00	SF	ACARCI	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					17	304	0	154	0	457	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.82	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					53	1,387	0	3,679	0	5,066	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	39.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	4,924	0	4,924	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	624.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					6	108	0	0	0	108	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	624.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					7	134	0	0	0	134	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	624.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					8	154	0	0	0	154	0.25
TOTAL Bottom Slab At Culvert	1.00	EA			102	2,241	14	8,756	0	11,011	11011.47

LABOR ID: C43RES

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CREW ID: NAT01A

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07.01. Gate S3

07.01.03.01.02. Roadway Approach Slab

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	10.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	92.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.96	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	10.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	260.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	260.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	260.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Roadway Approach Slab	1.00	EA		33	705	4	2,264	0	2,973	2972.61	

07.01.03.01.03. Apron Slab

MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	75.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	313.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	10.66	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	75.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1357.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1357.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1357.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Apron Slab	1.00	EA		243	5,546	27	19,996	0	25,569	25569.02	

LABOR ID: C43RES

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CREW ID: NATO1A

UPB ID: UPO1EA

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Slab On Grade	1.00	EA			377	8,492	44	31,017	0	39,553	39553.10
07.01.03.02. Walls											
07.01.03.02.01. Abutment Upstream											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	3.61	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	983.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	1241.93
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	983.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	124,114	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1382.00	SF	ACMACEFI1	67.50	572	9,838	6,105	0	0	16,22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1349.00	SF	ACARC2	54.38	0.01	0.29	0.00	0.03	0.00	0.32	0.32
TOTAL Abutment Upstream	1.00	EA			780	14,056	6,105	128,731	0	148,893	148892.61
07.01.03.02.02. Abutment Downstream											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.08	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	51.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	1241.93
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	51.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	126.26	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	1412.00	SF	ACMACEFI1	67.50	30	510	317	0	0	16.22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1356.00	SF	ACARC2	54.38	0.01	0.29	0.00	0.03	0.00	0.32	0.32
TOTAL Abutment Downstream	1.00	EA			254	5,161	317	12,479	0	17,957	17957.46

LABOR ID: C43RES EQUIP ID: C43RES

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
07.01.03.02.03. Pier											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.09	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	11.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	1,354	1241.93
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	11.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	126.26	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	647.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	1,389	126.26
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	630.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	16.22	16.22
TOTAL Pier	1.00	EA			97	1,914	68	2,972	0	4,954	4953.97
07.01.03.02.04. Exterior Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.21	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	22.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	2,745	1241.93
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	22.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	126.26	126.26
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	830.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	2,778	126.26
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	830.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	16.22	16.22
TOTAL Exterior Walls	1.00	EA			140	2,806	137	5,608	0	8,550	8550.41
07.01.03.02.05. Interior Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.47	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	15.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	1,826	1241.93

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3										TOTAL COST UNIT COST	
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		15.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22
						9	150	93	0	0	243
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		440.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32
						7	127	0	14	0	141
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		440.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90
						49	917	0	358	0	1,275
TOTAL Interior Wall		1.00	EA			79	1,604	93	3,681	0	5,379
											5378.89
07.01.03.02.06. Head Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		2.08	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93
						22	580	0	2,003	0	2,583
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		21.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
						0	0	0	2,651	0	2,651
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		21.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22
						12	210	130	0	0	341
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		881.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32
						13	254	0	28	0	283
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		797.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90
						88	1,661	0	648	0	2,309
TOTAL Head Wall		1.00	EA			135	2,706	130	5,331	0	8,167
											8167.23
TOTAL Walls		1.00	EA			1,486	28,248	6,850	158,802	0	193,901
											193900.56
07.01.03.03. Sill											
07.01.03.03.01. End Sill											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.09	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93
						1	25	0	87	0	112
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
						0	0	0	253	0	253
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		2.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22
						1	20	12	0	0	32
											16.22

LABOR ID: C43RES EQUIP ID: C43RES

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07.01. Gate S3		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		103.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						2	30	0	3	0	33	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		26.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						3	54	0	21	0	75	2.90
TOTAL End Sill		1.00	EA			7	129	12	364	0	505	505.12
07.01.03.03.02. For Dewatering Needles												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.06	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						1	17	0	58	0	75	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		1.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	126	0	126	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		1.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						1	10	6	0	0	16	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		115.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						2	33	0	4	0	37	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		26.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						3	54	0	21	0	75	2.90
TOTAL For Dewatering Needles		1.00	EA			6	114	6	209	0	329	329.23
TOTAL Sill		1.00	EA			12	243	19	573	0	834	834.35
07.01.03.04. Baffles												
07.01.03.04.01. Baffles												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.09	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						1	25	0	87	0	112	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	253	0	253	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		2.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						1	20	12	0	0	32	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		136.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						2	39	0	4	0	44	0.32

LABOR ID: C43RES EQUIP ID: C43RES

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07.01. Gate S3		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		96.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Baffles		1.00	EA			15	284	12	422	0	719	718.53
TOTAL Baffles		1.00	EA			15	284	12	422	0	719	718.53
07.01.03.07. Elevated Slabs												
07.01.03.07.01. Top Slab At Culvert												
CIV AA <03150 1500 > Forms in place, elev slab, flat Plate plywd 15'-20' high 4 use		657.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		88.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped		32.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		32.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		5.36	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab At Culvert		1.00	EA			150	3,361	121	9,954	0	13,437	13436.65
07.01.03.07.02. Roadway												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute		7.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		46.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		0.72	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		7.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		478.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish		478.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	478.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
					6	118	0	0	0	118	0.25
TOTAL Roadway	1.00	EA			32	669	3	1,616	0	2,287	2286.97
07.01.03.07.03. Operating Platform											
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	90.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
					9	165	0	103	0	268	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	2.50	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					0	0	0	0	0	0	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	1.16	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					0	7	4	0	0	11	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.16	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	146	0	146	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.19	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					3	69	0	183	0	252	1326.20
TOTAL Operating Platform	1.00	EA			12	241	4	432	0	678	678.25
TOTAL Elevated Slabs											
	1.00	EA			194	4,271	128	12,002	0	16,402	16401.87
07.01.03.08. Breast Wall											
07.01.03.08.01. Breast Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.40	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					4	112	0	385	0	497	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	505	0	505	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	4.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					2	40	25	0	0	65	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	288.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
					4	83	0	9	0	92	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	216.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					24	450	0	176	0	626	2.90
TOTAL Breast Wall	1.00	EA			35	685	25	1,075	0	1,785	1784.95

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Breast Wall	1.00	EA			35	685	25	1,075	0	1,785	1784.95
07.01.03.09. Pile Cap											
07.01.03.09.01. Pile Cap											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.63	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	12.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	12.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	640.00	SF	ACWACEFT1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 user, job built plywood	480.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Pile Cap	1.00	EA			76	1,481	75	2,533	0	4,088	4088.30
TOTAL Pile Cap	1.00	EA			76	1,481	75	2,533	0	4,088	4088.30
07.01.03.10. Seal Concrete											
07.01.03.10.01. Seal Concrete											
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi	559.00	CY	N/A	0.00	0.00	0.00	0.00	74.90	0.00	74.90	74.90
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped	559.00	CY	CLABC20	23.13	0.35	5.95	3.69	0.00	0.00	9.64	9.64
TOTAL Seal Concrete	1.00	EA			193	3,327	2,064	41,869	0	47,260	47260.04
TOTAL Seal Concrete	1.00	EA			193	3,327	2,064	41,869	0	47,260	47260.04
TOTAL Concrete	1.00	EA			2,389	47,032	9,218	248,292	0	304,542	304541.69
07.01.04. Erosion Control System											
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	292.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37

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07.01. Gate S3		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
CIV AA <02250 2140 >	Geotextile fabric, 120 mil thick, non-woven polypropylene	584.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
MIL AA <02244 1510 >	Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	97.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
TOTAL Erosion Control System		1.00	JB			170	3,642	2,268	10,538	0	16,448	16447.54
07.01.05. Gates												
USR AA <05150 0001 >	Slide Gate 10' x 10' SST	1.00	EA	SIWSE21	0.01	597.01	35260.72	7565.63	52965.00	0.00	95791.35	95791.35
USR AA <05150 0001 >	Weir Gate 10' x 5' SST	1.00	EA	SIWSE21	0.03	299.63	17696.39	3796.98	26750.00	0.00	48243.37	48243.37
TOTAL Gates		1.00	EA			897	52,957	11,363	79,715	0	144,035	144034.73
07.01.06. Rip Rap												
MIL AA <02244 1510 >	Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	121.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
CIV AA <02250 2140 >	Geotextile fabric, 120 mil thick, non-woven polypropylene	478.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
MIL AA <02270 1000 >	Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	242.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
TOTAL Rip Rap		1.00	EA			145	3,153	2,042	9,780	0	14,975	14974.64
07.01.11. Electrical												
USR EL <16119 0001 >	RTU\MOSCAD	1.00	EA	ELEELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	4029.48
USR EL <16119 0002 >	Actuator Starter & Remote Contrls	2.00	EA	ELEELEC1	0.01	92.59	4741.20	0.00	4815.00	0.00	9556.20	9556.20
USR EL <16711 0011 >	Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	700.00
USR EL <16181 5999 >	Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	529.36

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
RSM EL <16324 0100 >	Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	187.12
AF EL <16622 5230 >	HID fxttr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00	391.89	0.00	578.68	8,938
USR EL <16611 4100 >	Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00	181.90	0.00	310.41	368.80
USR EL <16617 0001 >	Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44	85.16	214.00	0.00	798.59	9,488
MIL EL <16617 1040 >	Lighting, poles, one 6' arm, 30' l, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89	62.38	903.35	0.00	1331.62	15,821
USR EL <16617 0002 >	Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89	17.03	460.10	0.00	577.02	686
MIL EL <16338 4400 >	Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEELEC1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	907
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	BELEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	3,648
MIL EL <16325 4320 >	Panelboard assem, 12-20A brkr, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	BELEELEC1	0.12	8.47	433.94	0.00	332.77	0.00	766.71	911
USR EL <16323 0001 >	Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1,099
USR EL <16333 1401 >	Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	234
USR EL <03000 0001 >	Concrete foundation NOTE: Use for Lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	107.00	0.00	224.82	267
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	15,179
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	112

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	
						26	1,574	0	407	0	1,982	612.55
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	
						19	1,164	0	541	0	1,705	1100.03
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	
						2	111	0	94	0	205	2730.93
MIL EL <16232 2482 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEELEC1	3.38	0.30	15.17	0.00	32.53	0.00	47.70	
						0	18	0	39	0	57	56.67
USR EL <16153 0014 >	Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	
						4	244	0	16	0	260	5.20
USR EL <16153 0013 >	Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	
						8	495	0	57	0	552	6.13
USR EL <16153 0012 >	Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	
						1	49	0	9	0	58	7.19
USR EL <16153 0010 >	Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	
						2	110	0	46	0	156	12.97
MIL EL <16711 0500 >	Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	
						8	494	77	381	0	952	952.34
MIL EL <16333 0620 >	Contact, lighting, 30 amp, 600 volt 4 pole, electrically held	2.00	EA	EELEEELEC1	0.41	2.42	123.98	0.00	269.11	0.00	393.09	
	NOTE: Use for LC1 & LC2					5	295	0	639	0	934	467.03
MIL EL <16338 5510 >	Safety switch, nvy dtv, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEELEC1	0.31	3.20	163.86	0.00	354.06	0.00	517.92	
						3	195	0	421	0	615	615.34
USR EL <16232 2483 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEELEC1	2.89	0.35	17.70	0.00	53.50	0.00	71.20	
						0	21	0	64	0	85	84.59
USR EL <16153 0011 >	Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	
						1	44	0	8	0	52	8.66
USR EL <16153 0012 >	Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	
						1	86	0	15	0	101	7.19
USR EL <16153 0013 >	Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	
						2	121	0	21	0	142	6.45
USR EL <16153 0014 >	Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	
						38	2,335	0	152	0	2,487	5.20

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07.01. Gate S3

	QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19		31.25	0.08	4.11	0.00	0.16	0.00	4.27	5.08
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELER19		15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELER19		11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELER19		10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELER19		32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELER19		22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELER19		15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELER19		22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELER19		32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELER19		10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELER19		11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELER19		36.25	0.03	1.41	0.00	0.39	0.00	1.80	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELER19		32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELER19		0.16	6.14	314.14	0.00	44.19	0.00	358.33	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20		1.24	1.05	54.01	0.00	39.80	0.00	93.82	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELER19		0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



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MIL EL <16326 0100 >	Panelboard&id ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	25.83
MIL EL <16326 0310 >	Panelboard&id ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.00	1.00	51.21	0.00	20.33	0.00	71.54	35.77
MIL EL <16325 4340 >	Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for distribution panel L	1.00	EA	EELEELEC1	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1059.14
							749	0	509	0	1,258	1258.36
MIL EL <16337 1700 >	Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEELEC1	0.24	4.20	215.15	0.00	293.18	0.00	508.33	508.33
							256	0	348	0	604	603.94
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2298.57
							868	0	730	0	1,598	2730.93
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	925.88
							119	0	55	0	174	1100.03
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	440.07
							2,916	0	542	0	3,459	522.84
MIL EL <16181 6000 >	Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	526.15
							3	0	6	0	9	625.11
MIL EL <16181 6310 >	Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	85.88
							1,654	0	488	0	2,143	102.04
CIV EL <16213 2744 >	Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEELEC1	0.63	1.60	81.93	0.00	69.67	0.00	151.60	151.60
							97	0	83	0	180	180.11
MIL EL <16213 0380 >	Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEELEC1	0.46	2.16	110.59	0.00	69.98	0.00	180.57	180.57
							394	0	249	0	644	214.54
MIL EL <16213 0330 >	Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEELEC1	0.53	1.90	97.53	0.00	44.60	0.00	142.13	142.13
							116	0	53	0	169	168.87
USR EL <16820 3580 >	Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	18763.03
							26,787	0	17,798	0	44,585	22292.35
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
							1,501	0	790	0	2,291	4.13
USR EL <16869 0090 >	Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	314.78
							183	0	191	0	374	373.99

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07.01. Gate S3										TOTAL COST UNIT COST			
QUANTITY UOM CREW ID OUTPUT MANHRS LABOR EQUIP MNT MATERIAL OTHER													
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld NOTE: Use for 2/0 cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102	102.04	
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	6,295	6295.07	
MIL EL <16338 5510 > Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELER19	0.31	3.19	163.59	0.00	354.06	0.00	517.66	2,460	615.03	
MIL EL <16313 9630 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	3,088	1544.06	
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R NOTE: Use for RTU enclosure	1.00	EA	EELER19	0.25	4.00	204.82	0.00	363.73	0.00	568.55	675	675.49	
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	234	233.70	
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	832	832	831.67	
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELER19	0.40	2.50	128.01	0.00	29.48	0.00	157.49	187	187.12	
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELER19	0.21	4.85	248.57	0.00	514.97	0.00	763.54	1,814	907.16	
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	449	448.57	
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHMQ20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	989	164.83	
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHMQ20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	758	189.42	
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	785	6.13	
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	62	5.14	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.01. Gate S3																		
				QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST				
AF	EL	<16232	2480	> Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEELEC1	3.38	0.30	15.17	0.00	30.82	0.00	45.99	54.64			
MIL	EL	<16234	0160	> Wiring device, concealed,switch, 120 volt, 20 amp, SPST	2.00	EA	EELEELEC1	1.38	0.73	37.24	0.00	9.68	0.00	46.92				
MIL	EL	<16617	3000	> Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	55.75			
MIL	EL	<16617	3500	> Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	736.09			
USR	EL	<16617	3300	> Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	910.17			
USR	EL	<16181	0105	> Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	848.03			
MIL	EL	<16181	6020	> Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	280.58			
USR	EL	<16865	0125	> Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	1656.64			
MIL	EL	<16611	3030	> Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	1620.70			
USR	EL	<16611	0001	> Ltq fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	157.49			
B	USR	EL	<16622	3010	> Ltq fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	708.21		
MIL	EL	<16622	3060	> Ltq, HID fxtr,250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	524.68			
MIL	EL	<16611	4120	> Ltq fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80	270.65			
MIL	EL	<02230	4020	> Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	10.61			

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07.01. Gate S3	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELEELEC1	0.07	15.15	775.83	0.00	448.33	0.00	1224.16	44
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELEELEC1	0.10	10.00	512.05	0.00	182.44	0.00	694.48	660
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEELEC1	0.17	5.75	294.28	0.00	42.80	0.00	337.08	65
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	389
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	25,084
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEELEC1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	4,066
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1,099
TOTAL Electrical	1.00	EA			2,562	146,775	27,000	125,345	1,663	300,783	300783.45
07.01.15. Equipment Building											
USR AA <03450 0001 > Precast Concrete Building	1.00	EA	SIWSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	50586.44	50,586
Note: Material price from Concrete Modular Systems 727-945-1756					130	7,180	1,676	41,730	0	50,586	50586.44
ATTN: Frederick Kennedy											
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARCL	75.00	0.05	0.96	0.00	0.51	0.00	1.48	100
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRDM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	218
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	631
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	90
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACMAFEI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	46
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACMAFEI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	57

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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07.01. Gate S3											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACMACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	18.10
TOTAL Equipment Building											
	1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
07.01.95. Controls											
USR MC <15743 0001 > Dewatering IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Level Control Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	32000	LF	CODBB54	90.63	0.01	0.47	0.13	0.00	0.00	0.60	0.60
USR MC <15743 0001 > Control Conduit & Cable	32000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	7.28
TOTAL Controls											
	1.00	EA			3,830	140,964	5,235	179,727	0	325,925	325925.04
TOTAL Gate S3											
	1.00	EA			10,549	421,831	68,710	783,271	1,663	1,275,476	1275476

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
<hr/>											
07.02.01. Excavation											
CIV AA <02228 0392 > Excavate, mcm soil, 3CY excavator	5455.00	CY	CODEB12Y	288.50	0.01	0.39	0.31	0.00	0.00	0.70	
					57	2,102	1,695	0	0	3,798	0.70
TOTAL Excavation	1.00	JB			57	2,102	1,695	0	0	3,798	3797.77
<hr/>											
07.02.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	6975.00	SF	CFIDB40	95.63	0.08	3.40	1.62	16.05	0.00	21.07	
					584	28,951	13,823	136,667	0	179,442	25.73
TOTAL Sheet Piling	1.00	EA			584	28,951	13,823	136,667	0	179,442	179441.69
<hr/>											
07.02.03. Concrete											
07.02.03.01. Slab On Grade											
07.02.03.01.01. Bridge Approach Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	10.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					3	39	4	0	0	43	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	92.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					8	152	0	77	0	229	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.96	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					13	349	0	924	0	1,273	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	10.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	1,263	0	1,263	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	260.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					2	45	0	0	0	45	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	260.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					3	56	0	0	0	56	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	260.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					3	64	0	0	0	64	0.25
TOTAL Bridge Approach Slab	1.00	EA			33	705	4	2,264	0	2,973	2972.61

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
07.02. Gate S10												
07.02.03.01.02. Ladder Platform												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	1.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	14.00	SF	ACARC1	43.75	1.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.05	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	24.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	48.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	48.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	48.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Ladder Platform		1.00	EA			4	76	0	3,090	0	3,166	3166.16
07.02.03.01.03. Apron Slab												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	446.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	824.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	63.14	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	446.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	3289.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	3289.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	3289.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Apron Slab		1.00	EA			1,189	28,135	160	117,803	0	146,098	146098.50

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
TOTAL Slab On Grade	1.00	EA			1,226	28,916	164	123,157	0	152,237	152237.26
-----											
07.02.03.02. Walls											
-----											
07.02.03.02.01. Abutment											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	18.40	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					196	5,132	0	17,719	0	22,852	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	185.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	23,358	0	23,358	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	185.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					108	1,852	1,149	0	0	3,001	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	4481.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					66	1,294	0	144	0	1,438	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	4162.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					459	8,674	0	3,385	0	12,059	2.90
TOTAL Abutment	1.00	EA			829	16,953	1,149	44,606	0	62,707	62707.20
-----											
07.02.03.02.02. Pier											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	19.31	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					206	5,386	0	18,596	0	23,982	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	195.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	24,621	0	24,621	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	195.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					113	1,952	1,211	0	0	3,163	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	4120.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					61	1,190	0	132	0	1,322	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3786.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					418	7,891	0	3,079	0	10,970	2.90
TOTAL Pier	1.00	EA			798	16,419	1,211	46,427	0	64,057	64056.88
-----											
TOTAL Walls	1.00	EA			1,627	33,371	2,360	91,033	0	126,764	126764.08
-----											

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA



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07.02. Gate S10									
07.02.03.03. Columns									
07.02.03.03.01. Abutments									
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7									
	2.59 TON SIWRDMD4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
			28	722	0	2,494	0	3,217	1241.93
MIL AA <03398 0010 > Finishing walls, break ties & patch voids									
	483.00 SF ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
			7	139	0	16	0	155	0.32
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket									
	16.00 CY ULABC7	5.00	1.60	27.52	21.84	0.00	0.00	49.36	
			26	440	349	0	0	790	49.36
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi									
	16.00 CY N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
			0	0	0	2,020	0	2,020	126.26
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use									
	483.00 SF ACARCI	28.13	0.14	2.57	0.00	0.57	0.00	3.14	
			69	1,240	0	274	0	1,514	3.14
TOTAL Abutments			129	2,543	349	4,804	0	7,696	7695.93
07.02.03.03.02. Piers									
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7									
	2.93 TON SIWRDMD4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
			31	817	0	2,822	0	3,639	1241.93
MIL AA <03398 0010 > Finishing walls, break ties & patch voids									
	506.00 SF ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
			7	146	0	16	0	162	0.32
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket									
	18.00 CY ULABC7	5.00	1.60	27.52	21.84	0.00	0.00	49.36	
			29	495	393	0	0	888	49.36
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi									
	18.00 CY N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
			0	0	0	2,273	0	2,273	126.26
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use									
	506.00 SF ACARCI	28.13	0.14	2.57	0.00	0.57	0.00	3.14	
			72	1,300	0	287	0	1,587	3.14
TOTAL Piers			139	2,758	393	5,397	0	8,549	8548.92
TOTAL Columns			269	5,301	742	10,201	0	16,245	16244.86

LABOR ID: C43RES EQUIP ID: C43RES

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		QUANTY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL	COST	UNIT	COST
07.02. Gate S10																
07.02.03.04. Weir																
07.02.03.04.01. Under Roller Gate																
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	20.00	CY	ULABC6		20.63	0.29	3.93	0.36	7	0.00	0.00	0.00	4.28	86	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	66.00	SF	ACARC1		43.75	0.09	1.65	0.00	0	0.83	0.00	0.00	2.49	164	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	2.00	TON	SIWRRODM4		0.29	13.89	363.20	0.00	0	963.00	0.00	0.00	1326.20	2,652	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	20.00	CY	N/A		0.00	0.00	0	0.00	0	126.26	0.00	0.00	126.26	2,525	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	261.00	SF	ACMACEF11		112.50	0.01	0.17	0.00	0	0.00	0.00	0.00	0.17	45	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	261.00	SF	ACMACEF11		90.63	0.01	0.22	0.00	0	0.00	0.00	0.00	0.22	56	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	261.00	SF	ACMACEF11		78.75	0.01	0.25	0.00	0	0.00	0.00	0.00	0.25	65	0.25
TOTAL Under Roller Gate		1.00	EA				48	1,080	7	4,506	0	0	0	5,593	5593.31	
07.02.03.05. Sill																
07.02.03.05.01. Under Weir Gate																
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	6.00	CY	ULABC6		20.63	0.29	3.93	0.36	2	0.00	0.00	0.00	4.28	26	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	188.00	SF	ACARC1		43.75	0.09	1.65	0.00	0	0.83	0.00	0.00	2.49	467	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.96	TON	SIWRRODM4		0.29	13.89	363.20	0.00	0	963.00	0.00	0.00	1326.20	1,273	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	6.00	CY	N/A		0.00	0.00	0	0.00	0	126.26	0.00	0.00	126.26	758	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	221.00	SF	ACMACEF11		112.50	0.01	0.17	0.00	0	0.00	0.00	0.00	0.17	38	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	221.00	SF	ACMACEF11		90.63	0.01	0.22	0.00	0	0.00	0.00	0.00	0.22	48	0.22

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	221.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.00	0.25	0.25
					3	55	0	0	0	0	55	55
TOTAL Under Weir Gate	1.00	EA			39	823	2	1,839	0	2,664	2664.26	
TOTAL Sill	1.00	EA			39	823	2	1,839	0	2,664	2664.26	
07.02.03.06. Baffles												
07.02.03.06.01. Baffles												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.46	TON	SINRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
					5	128	0	0	443	0	571	571
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	9.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	0	1,136	0	1,136	1,136
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	9.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
					5	90	56	0	0	0	146	146
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	536.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
					8	155	0	0	17	0	172	172
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	381.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
					42	794	0	0	310	0	1,104	1,104
TOTAL Baffles	1.00	EA			60	1,167	56	1,906	0	3,130	3129.52	
TOTAL Baffles	1.00	EA			60	1,167	56	1,906	0	3,130	3129.52	
07.02.03.07. Elevated Slabs												
07.02.03.07.01. Service Bridge Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	165.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.40	0.00	2.05	2.05
					15	272	0	0	65	0	338	338
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	878.00	SF	ACARC2	61.88	0.10	1.83	0.00	0.00	1.14	0.00	2.98	2.98
					85	1,608	0	0	1,005	0	2,613	2,613
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1920.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
					17	333	0	0	0	0	333	333
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	49.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	9.91
					17	300	186	0	0	0	486	486

LABOR ID: C43RES

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	49.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	2.55
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	8.06	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	162.26
TOTAL Service Bridge Slab	1.00	EA			247	5,440	186	15,019	0	20,645	20645.33
07.02.03.07.02. Operating Platform											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	135.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	360.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	990.00	SF	ACMACEF1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	24.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	24.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	5.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.00	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	331.55
TOTAL Operating Platform	1.00	EA			120	2,653	91	7,348	0	10,092	10092.32
07.02.03.08. Breast Wall											
07.02.03.08.01. Breast Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.46	TON	SIWRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	2718.54
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	25.25
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	5.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	3.24
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	290.00	SF	ACMACEF1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	270.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Breast Wall	1.00	EA			42	825	31	1,303	0	2,159	2159.05
TOTAL Breast Wall	1.00	EA			42	825	31	1,303	0	2,159	2159.05
07.02.03.09. Pile Cap											
07.02.03.09.01. Pile Cap											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.94	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	18.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	18.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	960.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	720.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Pile Cap	1.00	EA			114	2,220	112	3,794	0	6,126	6126.24
TOTAL Pile Cap	1.00	EA			114	2,220	112	3,794	0	6,126	6126.24
07.02.03.10. Seal Concrete											
07.02.03.10.01. Seal Concrete											
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi	912.00	CY	N/A	0.00	0.00	0.00	0.00	74.90	0.00	74.90	74.90
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped	912.00	CY	CLABC20	23.13	0.35	5.95	3.69	0.00	0.00	9.64	9.64
TOTAL Seal Concrete	1.00	EA			315	5,427	3,368	68,309	0	77,104	77104.04
TOTAL Seal Concrete	1.00	EA			315	5,427	3,368	68,309	0	77,104	77104.04

LABOR ID: C43RES EQUIP ID: C43RES

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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
TOTAL Concrete	1.00	EA			4,108	87,225	7,119	328,416	0	422,760	422760.25
-----											
07.02.04. Erosion Control System											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	117.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					11	396	471	3,037	0	3,904	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	700.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					14	284	103	966	0	1,354	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	350.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
					179	3,686	2,147	8,647	0	14,481	41.37
TOTAL Erosion Control System	1.00	JB			204	4,367	2,721	12,651	0	19,739	19738.97
-----											
07.02.05. Gates											
USR AA <05150 0001 > Roller Gate 14' x 8' CI	1.00	EA	SIWSE21	0.01	919.54	54309.62	11652.80	78110.00	0.00	144072.43	144072.43
					920	54,310	11,653	78,110	0	144,072	144072.43
USR AA <05150 0001 > Weir Gate 10' x 8' SST	2.00	EA	SIWSE21	0.02	470.59	27793.75	5963.49	42800.00	0.00	76557.24	76557.24
					941	55,587	11,927	85,600	0	153,114	76557.24
TOTAL Gates	1.00	EA			1,861	109,897	23,580	163,710	0	297,187	297186.91
-----											
07.02.06. Rip Rap											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	190.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					17	644	764	4,932	0	6,340	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	758.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					15	308	112	1,046	0	1,466	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	379.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
					194	3,992	2,325	9,364	0	15,681	41.37
TOTAL Rip Rap	1.00	EA			227	4,944	3,201	15,342	0	23,487	23486.88
-----											
07.02.11. Electrical											
USR EL <16865 0110 > Control Panel	1.00	EA	EELER19	0.08	30.12	1548.34	0.00	8560.00	0.00	10108.34	10108.34
					30	1,840	0	10,170	0	12,010	12009.72
USR EL <16119 0001 > RTU w/PLC	1.00	EA	EELSELEC1	0.03	36.90	1889.48	0.00	4280.00	0.00	6169.48	6169.48
					37	2,245	0	5,085	0	7,330	7329.96

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07.02. Gate S10										TOTAL COST UNIT COST			
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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL	COST	UNIT COST
USR EL <16119 0002 > Hoist Starters & Remote Controls		1.00	EA	EELEELEC1	0.02	55.56	2844.72	0.00	3745.00	0.00	6589.72		
						56	3,380		0	0	7,829		7829.25
USR EL <16119 0002 > Actuator Starter & Remote Cntrls		2.00	EA	EELEELEC1	0.02	111	6,760	0.00	3745.00	0.00	6589.72		
						111	6,760		0	0	15,658		7829.25
USR EL <16711 0011 > Meter Connection by Utility		1.00	LS		0.00	0.00	0	0.00	0	700.00	700.00		
						0	0		0	832	832		831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6		0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36		
						0	13		0	0	41		628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position		1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49		
						3	152		0	0	187		187.12
AF EL <16622 5230 > HID fxttr, floodlight, 250W high press sodium lamp, encl, heavy duty		13.00	EA	EELER19	0.69	3.63	186.79	0.00	391.89	0.00	578.68		
						47	2,885		0	0	8,938		687.53
USR EL <16611 4100 > Compact Fluorescent		7.00	EA	EELER19	1.00	2.50	128.51	0.00	181.90	0.00	310.41		
						18	1,069		0	0	2,582		368.80
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, octagonal, conc		10.00	EA	EELER15	0.60	10.00	499.44	85.16	214.00	0.00	798.59		
						100	5,934	1,012	2,543	0	9,488		948.81
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' l, roadway, galv steel, rnd, tapered		10.00	EA	EELER15	0.82	7.33	365.89	62.38	903.35	0.00	1331.62		
						73	4,347	741	10,733	0	15,821		1582.10
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole		1.00	EA	EELER15	3.00	2.00	99.89	17.03	460.10	0.00	577.02		
						2	119	20	547	0	686		685.56
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1		1.00	EA	EELEELEC1	0.21	4.85	248.57	0.00	514.97	0.00	763.54		
						5	295		0	0	907		907.16
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		13.00	EA	EELEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16		
						26	1,582		0	0	3,648		280.58
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V		1.00	EA	EELEELEC1	0.12	8.47	433.94	0.00	332.77	0.00	766.71		
						8	516		0	0	911		910.93
NOTE: Use for Panel L													
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller		1.00	EA	EELEELEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29		
						2	146		953	0	1,099		1099.34
USR EL <16333 1401 > Photo-cell		1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70		
						1	81		153	0	234		233.70

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07.02. Gate S10										TOTAL COST UNIT COST			
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller		1.00	EA	ULABC6	0.75	8	107.95	9.87	107.00	0.00	224.82	224.82	
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher		1430.00	LF	COETR23	33.25	154	7,878	4.30	0.00	0.00	15,179	10.61	
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12		0.22	MLF	EELEEELEC1	0.14	2	371.05	0.00	69.02	0.00	440.07	522.84	
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10		3.24	MLF	EELEEELEC1	0.13	26	409.64	0.00	105.93	0.00	515.57	612.55	
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6		1.55	MLF	EELEEELEC1	0.08	19	632.16	0.00	293.72	0.00	925.88	1100.03	
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0		0.08	MLF	EELEEELEC1	0.04	2	1248.90	0.00	1049.67	0.00	2298.57	2730.93	
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex		1.00	EA	EELEEELEC1	3.38	0	15.17	0.00	32.53	0.00	47.70	56.67	
USR EL <16153 0014 > Cable Termination #12		50.00	EA	EELER19	31.25	4	4.11	0.00	0.27	0.00	4.38	5.20	
USR EL <16153 0013 > Cable Termination #10		90.00	EA	EELER19	27.78	8	4.63	0.00	0.54	0.00	5.16	6.13	
USR EL <16153 0012 > Cable Termination #6		8.00	EA	EELER19	25.00	1	5.14	0.00	0.91	0.00	6.05	7.19	
USR EL <16153 0010 > Cable Termination #1/0		12.00	EA	EELER19	16.67	2	7.71	0.00	3.21	0.00	10.92	12.97	
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov		1.00	EA	EELER3	0.31	8	415.55	65.02	321.00	0.00	801.57	952.34	
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2		2.00	EA	EELEEELEC1	0.41	5	123.98	0.00	269.11	0.00	393.09	467.03	
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R		1.00	EA	EELEEELEC1	0.31	3	163.86	0.00	354.06	0.00	517.92	615.34	
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP		1.00	EA	EELEEELEC1	2.89	0	17.70	0.00	53.50	0.00	71.20	84.59	

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	8.66
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	6.45
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	5.08
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEEE1C1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEEE1C1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEEE1C1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEEE1C1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEEE1C1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEEE1C1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEEE1C1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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07.02. Gate S10

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55
MIL EL <16326 0100 > Panelboard 4id ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	61.38
MIL EL <16326 0310 > Panelboard 4id ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEELEC1	1.00	1.00	51.21	0.00	20.33	0.00	71.54	84.99
MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for distribution panel L	1.00	EA	EELEEELEC1	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1258.36
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEELEC1	0.24	4.20	215.15	0.00	293.18	0.00	508.33	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEELEC1	0.63	1.60	81.93	0.00	69.67	0.00	151.60	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEELEC1	0.46	2.16	110.59	0.00	69.98	0.00	180.57	214.54

LABOR ID: C43RES EQUIP ID: C43RES

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07.02. Gate S10

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELER19	0.53	1.90	97.53	0.00	44.60	0.00	142.13	168.87
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	22292.35
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELER19	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld NOTE: Use for 2/0 cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELER19	0.31	3.19	163.59	0.00	354.06	0.00	517.66	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comp, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, db1 dr, NEMA 3R NOTE: Use for RTU enclosure	1.00	EA	EELER19	0.25	4.00	204.82	0.00	363.73	0.00	568.55	675.49
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	0.00	700.00	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELER19	0.40	2.50	128.01	0.00	29.48	0.00	157.49	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELER19	0.21	4.85	248.57	0.00	514.97	0.00	763.54	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	448.57

LABOR ID: C43RES EQUIP ID: C43RES

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07.02. Gate S10

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHM20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	138.73
					25	798		191	0	989	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHM20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	159.43
					16	503		254	0	758	189.42
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	5.16
					12	704		81	0	785	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	4.33
					1	59		3	0	62	5.14
AF EL <16232 2480 > Wiring device, receptacle, and fault intrpt, 15 amp, duplex	4.00	EA	EELER15	3.38	0.30	15.17	0.00	30.82	0.00	45.99	45.99
					1	72		146	0	219	54.64
MIL EL <16234 0160 > Wiring device, concealed, switch, 120 volt, 20 amp, SPST	2.00	EA	EELER15	1.38	0.73	37.24	0.00	9.68	0.00	46.92	46.92
					1	88		23	0	111	55.75
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	619.55
					4	248	42	1,182	0	1,472	736.09
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	766.07
					14	802	137	882	0	1,820	910.17
USR EL <16617 3300 > Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	713.77
					32	1,899	324	1,170	0	3,392	848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELER15	0.50	2.00	102.41	0.00	133.75	0.00	236.16	236.16
					14	852	0	1,112	0	1,964	280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	1394.36
					8	258	0	1,125	0	1,383	1656.64
USR EL <16865 0125 > Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	1364.11
					16	985	0	636	0	1,621	1620.70
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	132.55
					6	320	0	310	0	630	157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELER15	0.72	2.76	141.33	0.00	454.75	0.00	596.08	596.08
					6	336	0	1,081	0	1,416	708.21
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELER15	0.72	2.76	141.33	0.00	454.75	0.00	596.08	596.08
					6	336	0	1,081	0	1,416	708.21

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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07.02. Gate S10	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	524.68
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELER19	0.07	15.15	775.83	0.00	448.33	0.00	1224.16	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELER19	0.10	10.00	512.05	0.00	182.44	0.00	694.48	825.12
USR EL <16119 0980 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELER19	0.17	5.75	294.28	0.00	42.80	0.00	337.08	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	12.97
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	25083.87
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELER19	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	4066.14
USR EL <16323 0001 > Terminal Box	1.00	EA	EELER19	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1099.34
TOTAL Electrical	1.00	EA			2,574	147,488	27,000	139,965	1,663	316,116	316116.00

07.02.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Material price from  
Note: Material Price From  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use

LABOR ID: C43RES EQUIP ID: C43RES

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07.02. Gate S10		QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRR0DM4		0.29	13.89	363.20	0.00	0.00	727.60	0.00	1090.80	
M RSM AA <03326 0300 >	Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A		0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	218 1090.80
MIL AA <03372 4400 >	Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7		13.75	0.58	10.01	7.94	40	0.00	0.00	17.95	631 126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	264.00	SF	ACWACEFI1		112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	90 17.95
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	264.00	SF	ACWACEFI1		90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	46 0.17
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	264.00	SF	ACWACEFI1		84.38	0.01	0.23	0.00	0.00	0.00	0.00	0.23	57 0.22
MIL AA <02215 2460 >	Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODFB10N		47.50	0.03	1.07	0.77	4	16.26	0.00	18.10	61 0.23
TOTAL Equipment Building		1.00	JB				148	7,537	1,720		42,623	0	51,880	51880.06
07.02.95. Controls														
USR MC <15743 0001 >	Dewatering Gate IO Points	1.00	EA	N/A		0.00	0.00	200.00	0.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 >	Level Control Gate IO Points	2.00	EA	N/A		0.00	0.00	200.00	0.00	0.00	856.00	0.00	1056.00	1,324 1323.70
USR MC <15743 0001 >	Upstream Downstream Level IO Points	2.00	EA	N/A		0.00	0.00	200.00	0.00	0.00	856.00	0.00	1056.00	2,647 1323.70
USR MC <15743 0001 >	Emergency Generator IO Points	1.00	EA	N/A		0.00	0.00	200.00	0.00	0.00	856.00	0.00	1056.00	2,647 1323.70
USR MC <15743 0001 >	Telemetry To/From Gated Structure	1.00	EA	N/A		0.00	0.00	200.00	0.00	0.00	856.00	0.00	1056.00	1,324 1323.70
USR MC <15743 0001 >	16 VHF Data Radios Structure	1.00	EA	N/A		0.00	0.00	100.00	0.00	0.00	535.00	0.00	635.00	796 795.97
AF MC <02230 2850 >	Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	10500	LF	CODBB54		90.63	0.01	0.47	0.13	1,718	0.00	0.00	0.60	1905.00 2387.92

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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07.02. Gate S10		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR MC <15743 0001 > Control Conduit & Cable		10500	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	
						1,141	39,485	0	56,332	0	95,818	9.13
TOTAL Controls		1.00	EA			1,257	47,683	1,718	65,453	0	114,854	114853.82
TOTAL Gate S10		1.00	EA			11,019	440,195	82,578	904,826	1,663	1,429,262	1429262

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07.03. Gate S11	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
07.03.01. Excavation											
CIV AA <02228 0392 > Excavate, mcm soil, 3CY excavator	8088.00	CY	CODEB12Y	288.50	0.01	0.39	0.31	0.00	0.00	0.70	
					84	3,117	2,514	0	0	5,631	0.70
TOTAL Excavation	1.00	JB			84	3,117	2,514	0	0	5,631	5630.87
-----											
07.03.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	14752 SF	CPIDB40		95.63	0.08	3.40	1.62	16.05	0.00	21.07	
					1,235	61,231	29,236	289,048	0	379,516	25.73
TOTAL Sheet Piling	1.00	EA			1,235	61,231	29,236	289,048	0	379,516	379515.95
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07.03.03. Concrete											
07.03.03.01. Slab On Grade											
07.03.03.01.01. Bridge Approach Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	10.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					3	39	4	0	0	43	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	92.00	SF	ACARCL	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					8	152	0	77	0	229	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.96	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					13	349	0	924	0	1,273	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	10.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	1,263	0	1,263	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	260.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					2	45	0	0	0	45	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	260.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					3	56	0	0	0	56	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	260.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					3	64	0	0	0	64	0.25
TOTAL Bridge Approach Slab	1.00	EA			33	705	4	2,264	0	2,973	2972.61
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LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA



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07.03. Gate S11		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
07.03.03.01.02. Ladder Platform													
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	1.00	CY	ULABC6	20.63	0.29	3.93	0.36	0	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	14.00	SF	ACARC1	43.75	0.09	1.65	0.00	0	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.05	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	24.00	CY	N/A	0.00	0.00	0.00	0.00	0	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	48.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	48.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	48.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0	0.00	0.00	0.25	0.25
TOTAL Ladder Platform		1.00	EA			4	76	0	0	3,090	0	3,166	3166.16
07.03.03.01.03. Apron Slab													
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	709.00	CY	ULABC6	20.63	0.29	3.93	0.36	254	0.00	0.00	4.28	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	1037.00	SF	ACARC1	43.75	0.09	1.65	0.00	0	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	100.32	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	709.00	CY	N/A	0.00	0.00	0.00	0.00	0	126.26	0.00	126.26	126.26
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	4082.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0	0.00	0.00	0.17	0.17
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	4082.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0	0.00	0.00	0.22	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	4082.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0	0.00	0.00	0.25	0.25
TOTAL Apron Slab		1.00	EA			1,827	43,527	254	186,992	0	0	230,773	230773.36

LABOR ID: C43RES EQUIP ID: C43RES

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07.03. Gate S11		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Slab On Grade		1.00	EA			1,864	44,308	258		192,346	0	236,912	236912.12
07.03.03.02. Walls													
07.03.03.02.01. Abutment													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		30.31	TON	SIWRR0DM4	0.38	10.67	278.93	0.00		963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		305.44	CY	N/A	0.00	0.00	0.00	0.00		126.26	0.00	126.26	
MIL AA <03372 5100 > Placing conc. walls, 12" thick, pumped		305.44	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		7197.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.00	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		6811.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	0.00	2.90	
TOTAL Abutment		1.00	EA			1,359	27,786	1,897		73,523	0	103,206	103205.62
07.03.03.02.02. Pier													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		35.00	TON	SIWRR0DM4	0.38	10.67	278.93	0.00		963.00	0.00	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		351.00	CY	N/A	0.00	0.00	0.00	0.00		126.26	0.00	126.26	
MIL AA <03372 5100 > Placing conc. walls, 12" thick, pumped		351.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		7152.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.00	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		6709.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	0.00	2.90	
TOTAL Pier		1.00	EA			1,423	29,324	2,180		83,708	0	115,212	115211.67
TOTAL Walls		1.00	EA			2,782	57,110	4,077		157,231	0	218,417	218417.29

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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07.03. Gate S11									
07.03.03.03. Columns									
07.03.03.03.01. Abutments									
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.59 TON	SINERODM4	0.38	10.67 28	278.93 722	0.00	963.00 2,494	0.00	1241.93 3,217
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	483.00 SF	ACMACEF11	67.50	0.01 7	0.29 139	0.00	0.03 16	0.00	0.32 155
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket	16.00 CY	ULABC7	5.00	1.60 26	27.52 440	21.84 349	0.00	0.00	49.36 790
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	16.00 CY	N/A	0.00	0.00 0	0.00	0.00	126.26 2,020	0.00	126.26 2,020
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use	483.00 SF	ACARC1	28.13	0.14 69	2.57 1,240	0.00	0.57 274	0.00	3.14 1,514
TOTAL Abutments	1.00 EA			129	2,543	349	4,804	0	7,696
07.03.03.03.02. Piers									
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.39 TON	SINERODM4	0.38	10.67 47	278.93 1,225	0.00	963.00 4,228	0.00	1241.93 5,452
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	506.00 SF	ACMACEF11	67.50	0.01 7	0.29 146	0.00	0.03 16	0.00	0.32 162
MIL AA <03372 0450 > Placing conc, columns, square/round, 12" thick, w/crane & bucket	27.00 CY	ULABC7	5.00	1.60 43	27.52 743	21.84 590	0.00	0.00	49.36 1,333
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	27.00 CY	N/A	0.00	0.00 0	0.00	0.00	126.26 3,409	0.00	126.26 3,409
MIL AA <03142 5650 > Forms in place, columns, plywood, 12" x 12", 4 use	506.00 SF	ACARC1	28.13	0.14 72	2.57 1,300	0.00	0.57 287	0.00	3.14 1,587
TOTAL Piers	1.00 EA			169	3,413	590	7,940	0	11,943
TOTAL Columns	1.00 EA			299	5,956	939	12,744	0	19,639
19638.66									

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07.03. Gate Sill	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
07.03.03.04. Weir											
07.03.03.04.01. Under Roller Gate											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	163.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					47	640	58	0	0	698	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	375.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					34	619	0	313	0	932	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	16.13	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					224	5,858	0	15,533	0	21,392	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	163.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	20,580	0	20,580	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1023.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					9	177	0	0	0	177	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1023.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					11	220	0	0	0	220	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1023.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
					13	253	0	0	0	253	0.25
TOTAL Under Roller Gate	1.00	EA			339	7,768	58	36,427	0	44,253	44252.94
07.03.03.05. Sill											
TOTAL Weir											
	1.00	EA			339	7,768	58	36,427	0	44,253	44252.94
07.03.03.05.01. Under Weir Gate											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	17.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					5	67	6	0	0	73	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	556.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					51	918	0	464	0	1,382	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.84	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					39	1,031	0	2,735	0	3,766	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	17.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	2,146	0	2,146	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	589.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					5	102	0	0	0	102	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	589.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					6	127	0	0	0	127	0.22

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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07.03. Gate S11	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	589.00	SF	ACMACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
					7	146	0	0	0	146	0.25
TOTAL Under Weir Gate	1.00	EA			114	2,391	6	5,345	0	7,742	7742.25
TOTAL Sill	1.00	EA			114	2,391	6	5,345	0	7,742	7742.25
07.03.03.07. Elevated Slabs											
07.03.03.07.01. Service Bridge Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	227.00	SF	ACARCL1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
					21	375	0	90	0	465	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	1891.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
					183	3,463	0	2,165	0	5,628	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	4009.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					36	695	0	0	0	695	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	101.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					36	618	383	0	0	1,001	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	101.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	12,752	0	12,752	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	16.68	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					232	6,058	0	16,063	0	22,121	1326.20
TOTAL Service Bridge Slab	1.00	EA			507	11,209	383	31,070	0	42,662	42662.10
07.03.03.07.02. Operating Platform											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	186.00	SF	ACARCL1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	2.05
					17	307	0	74	0	381	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	496.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
					48	908	0	568	0	1,476	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1364.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					12	236	0	0	0	236	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	33.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					12	202	125	0	0	327	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	33.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	4,167	0	4,167	126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UPO1EA

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07.03. Gate S11	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	5.51	TON SIWRRODM4		0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					77	2,001	0	5,306	0	7,307	1326.20
TOTAL Operating Platform	1.00	EA			166	3,655	125	10,114	0	13,894	13894.43
TOTAL Elevated Slabs	1.00	EA			673	14,864	509	41,184	0	56,557	56556.52
07.03.03.08. Breast Wall											
07.03.03.08.01. Breast Wall											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.42	TON SIWRRODM4		0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					4	117	0	404	0	522	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY N/A		0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	505	0	505	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	4.00	CY CIABC20		13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					2	40	25	0	0	65	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	270.00	SF ACWACEF11		67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					4	78	0	9	0	87	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	250.00	SF ACARC2		54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					28	521	0	203	0	724	2.90
TOTAL Breast Wall	1.00	EA			38	756	25	1,121	0	1,903	1902.52
TOTAL Breast Wall	1.00	EA			38	756	25	1,121	0	1,903	1902.52
07.03.03.09. Pile Cap											
07.03.03.09.01. Pile Cap											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.94	TON SIWRRODM4		0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					10	262	0	905	0	1,167	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	18.00	CY N/A		0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	2,273	0	2,273	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	18.00	CY CIABC20		13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					10	180	112	0	0	292	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	960.00	SF ACWACEF11		67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					14	277	0	31	0	308	0.32

LABOR ID: C43RES

Currency in DOLLARS

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07.03. Gate S11	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	720.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					79	1,501	0	586	0	2,086	2.90
TOTAL Pile Cap	1.00	EA			114	2,220	112	3,794	0	6,126	6126.24
TOTAL Pile Cap	1.00	EA			114	2,220	112	3,794	0	6,126	6126.24
07.03.03.10. Seal Concrete											
07.03.03.10.01. Seal Concrete											
M RSM AA <03326 0100 > Concrete ready mix, regular weight, 2500 psi	1353.00	CY	N/A	0.00	0.00	0.00	0.00	74.90	0.00	74.90	74.90
					0	0	0	101,340	0	101,340	74.90
MIL AA <03372 4650 > Placing conc, slab on grade, over 6" thick, pumped	1353.00	CY	CLABC20	23.13	0.35	5.95	3.69	0.00	0.00	9.64	9.64
					468	8,052	4,996	0	0	13,048	9.64
TOTAL Seal Concrete	1.00	EA			468	8,052	4,996	101,340	0	114,388	114387.90
TOTAL Seal Concrete	1.00	EA			468	8,052	4,996	101,340	0	114,388	114387.90
TOTAL Concrete	1.00	EA			6,692	143,424	10,980	551,532	0	705,936	705936.44
07.03.04. Erosion Control System											
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	456.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
					234	4,803	2,798	11,266	0	18,867	41.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	912.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					18	371	134	1,259	0	1,764	1.93
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	152.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					14	515	611	3,946	0	5,072	33.37
TOTAL Erosion Control System	1.00	JB			266	5,688	3,544	16,471	0	25,703	25702.56
07.03.05. Gates											
USR AA <05150 0001 > Roller Gate 14' x 8' CI	2.00	EA	SIWSE21	0.01	888.89	52499.30	11264.38	78110.00	0.00	141873.68	141873.68
					1,778	104,999	22,529	156,220	0	283,747	141873.68
USR AA <05150 0001 > Weir Gate 10' x 8' SSI	2.00	EA	SIWSE21	0.02	470.59	27793.75	5963.49	42800.00	0.00	76557.24	76557.24
					941	55,587	11,927	85,600	0	153,114	76557.24

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
07. Perimeter Canal Structures

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07.03. Gate S11		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
TOTAL Gates		1.00	EA			2,719	160,586	34,456		241,820	0	436,862	436861.84
07.03.06. Rip Rap													
MIL AA <02244 1510 >	Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	305.00	CY	COFGB36C	54.38	0.09	3.39	4.02		25.96	0.00	33.37	
						28	1,033	1,227		7,917	0	10,177	33.37
CIV AA <02250 2140 >	Geotextile fabric, 120 mil thick, non-woven polypropylene	1219.00	SY	ULABA2	150.00	0.02	0.41	0.15		1.38	0.00	1.93	
						24	495	180		1,683	0	2,358	1.93
MIL AA <02270 1000 >	Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	610.00	CY	CODEB3A	9.75	0.51	10.53	6.14		24.71	0.00	41.37	
						313	6,425	3,742		15,071	0	25,238	41.37
TOTAL Rip Rap		1.00	EA			365	7,954	5,149		24,671	0	37,773	37773.32
07.03.11. Electrical													
USR EL <16865 0110 >	Control Panel	1.00	EA	EELER19	0.08	30.12	1548.34	0.00		8560.00	0.00	10108.34	
						30	1,840	0		10,170	0	12,010	12009.72
USR EL <16119 0001 >	RTU w/PLC	1.00	EA	ELEEELEC1	0.03	36.90	1889.48	0.00		4280.00	0.00	6169.48	
						37	2,245	0		5,085	0	7,330	7329.96
USR EL <16119 0002 >	Hoist Starters & Remote Controls	2.00	EA	ELEEELEC1	0.02	55.56	2844.72	0.00		3745.00	0.00	6589.72	
						111	6,760	0		8,899	0	15,658	7829.25
USR EL <16119 0002 >	Actuator Starter & Remote Controls	2.00	EA	ELEEELEC1	0.02	55.56	2844.72	0.00		3745.00	0.00	6589.72	
						111	6,760	0		8,899	0	15,658	7829.25
USR EL <16711 0011 >	Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00		700.00	0.00	700.00	
						0	0	0		832	0	832	831.67
USR EL <16181 5999 >	Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00		363.80	0.00	529.36	
						0	13	0		28	0	41	628.93
RSM EL <16324 0100 >	Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	ELEEELEC1	0.40	2.50	128.01	0.00		29.48	0.00	157.49	
						3	152	0		35	0	187	187.12
AF EL <16622 5230 >	HID fxt, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00		391.89	0.00	578.68	
						47	2,885	0		6,053	0	8,938	687.53
USR EL <16611 4100 >	Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00		181.90	0.00	310.41	
						18	1,069	0		1,513	0	2,582	368.80

LABOR ID: C43RES

EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA



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30% Submittal  
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07.03. Gate S11

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44 5,934	85.16 1,012	214.00 2,543	0.00 0	798.59 9,488	948.81
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89 4,347	62.38 741	903.35 10,733	0.00 0	1331.62 15,821	1582.10
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89 119	17.03 20	460.10 547	0.00 0	577.02 686	685.56
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEELEC1	0.21	4.85	248.57 295	0.00 0	514.97 612	0.00 0	763.54 907	907.16
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEELEC1	0.50	2.00	102.41 1,582	0.00 0	133.75 2,066	0.00 0	236.16 3,648	280.58
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEELEC1	0.12	8.47	433.94 516	0.00 0	332.77 395	0.00 0	766.71 911	910.93
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEELEC1	0.42	2.40	122.79 146	0.00 0	802.50 953	0.00 0	925.29 1,099	1099.34
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30 81	0.00 0	128.40 153	0.00 0	196.70 234	233.70
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95 128	9.87 12	107.00 127	0.00 0	224.82 267	267.11
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64 7,878	4.30 7,301	0.00 0	0.00 0	8.93 15,179	10.61
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEELEC1	0.14	7.25	371.05 95	0.00 0	69.02 18	0.00 0	440.07 112	522.84
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEELEC1	0.13	8.00	409.64 1,574	0.00 0	105.93 407	0.00 0	515.57 1,982	612.55
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEELEC1	0.08	12.35	632.16 1,164	0.00 0	293.72 541	0.00 0	925.88 1,705	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEELEC1	0.04	24.39	1248.90 111	0.00 0	1049.67 94	0.00 0	2298.57 205	2730.93

LABOR ID: C43RES EQUIP ID: C43RES

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07.03. Gate S11

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16232 2482 > Wiring device, receptacle, and fault intrpt, 20 amp, duplex	1.00	EA	ELEELEC1	3.38	0.30	15.17	0.00	32.53	0.00	47.70	57
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	260
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	552
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	58
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	156
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	952
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for ICL & LC2	2.00	EA	ELEELEC1	0.41	2.42	123.98	0.00	269.11	0.00	393.09	934
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	ELEELEC1	0.31	3.20	163.86	0.00	354.06	0.00	517.92	615
USR EL <16232 2483 > Wiring device, receptacle, and fault intrpt, 20 amp, duplex WP	1.00	EA	ELEELEC1	2.89	0.35	17.70	0.00	53.50	0.00	71.20	85
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	52
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	101
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	142
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	2,487
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	274
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	ELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	433
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	ELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	9,321

LABOR ID: C43RES EQUIP ID: C43RES

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07.03. Gate S11

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	921
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	8,146
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	5,201
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	420
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	2,188
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2,291
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	205
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	39
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEELEC1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	150
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	3,793
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	29
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	1,338
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	3,414
MIL EL <16326 0100 > Panelboard, 48 ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	123
MIL EL <16326 0310 > Panelboard, 48 ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.00	1.00	51.21	0.00	20.33	0.00	71.54	170
MIL EL <16325 4340 > Panelboard, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V	1.00	EA	EELEELEC1	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1,258

LABOR ID: C43RES EQUIP ID: C43RES

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07.03. Gate S11	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
NOTE: Use for distribution Panel L											
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEELEC1	0.24	4.20	215.15	0.00	293.18	0.00	508.33	508.33
						256		348		604	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2298.57
						868		730		1,598	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	925.88
						119		55		174	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	440.07
						2,916		542		3,459	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	526.15
						3		6		9	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	85.88
						1,654		488		2,143	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEELEC1	0.63	1.60	81.93	0.00	69.67	0.00	151.60	151.60
						97		83		180	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEELEC1	0.46	2.16	110.59	0.00	69.98	0.00	180.57	180.57
						394		249		644	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D	1.00	EA	EELEEELEC1	0.53	1.90	97.53	0.00	44.60	0.00	142.13	142.13
NOTE: Use for 12"x 18" x 6"						116		53		169	168.87
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	18763.03
						26,787		17,798		44,585	22292.35
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
						1,501		790		2,291	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	314.78
						183		191		374	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	85.88
NOTE: Use for 2/0 cadweld						79		23		102	102.04
USR EL <16000 0001 > Concrete antennae pole	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	5298.43
NOTE: Includes foundation, ground rod, ground cable, conduit, etc.						2,481		3,814		6,295	6295.07

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07. Perimeter Canal Structures

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07.03. Gate S11

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEEE1	0.31	13	163.59	0.00	354.06	0.00	517.66	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, db1 dr, NEMA 3R	1.00	EA	EELEEE1	0.25	4.00	204.82	0.00	363.73	0.00	568.55	675.49
NOTE: Use for RTU enclosure											
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	832
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEE1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	187
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEEE1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	449
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHM20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHM20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	758
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEEE1	3.38	0.30	15.17	0.00	30.82	0.00	45.99	54.64
MIL EL <16234 0160 > Wiring device, concealed, switch, 120 volt, 20 amp, SPST	2.00	EA	EELEEE1	1.38	0.73	37.24	0.00	9.68	0.00	46.92	55.75
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	736.09

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
07. Perimeter Canal Structures

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07.03. Gate S11

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76 14	337.46 802	57.54 137	371.08 882	0.00 0	766.07 1,820	910.17
USR EL <16617 3300 > Light Pole Foundation	4.00	EA	EELER15	0.75	8.00 32	399.55 1,899	68.12 324	246.10 1,170	0.00 0	713.77 3,392	848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELEELEC1	0.50	2.00 14	102.41 852	0.00 0	133.75 1,112	0.00 0	236.16 1,964	280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43 8	260.16 258	0.00 0	1134.20 1,125	0.00 0	1394.36 1,383	1656.64
USR EL <16865 0125 > Level Gage	1.00	EA	EELER19	0.16	16.13 16	829.11 985	0.00 0	535.00 636	0.00 0	1364.11 1,621	1620.70
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43 6	67.39 320	0.00 0	65.16 310	0.00 0	132.55 630	157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELEELEC2	0.72	2.76 6	141.33 336	0.00 0	454.75 1,081	0.00 0	596.08 1,416	708.21
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELEELEC2	0.72	2.76 6	141.33 336	0.00 0	454.75 1,081	0.00 0	596.08 1,416	708.21
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33 9	119.55 568	0.00 0	322.07 1,531	0.00 0	441.62 2,099	524.68
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62 13	76.18 724	0.00 0	151.62 1,441	0.00 0	227.80 2,165	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11 358	4.64 18,289	4.30 16,951	0.00 0	0.00 0	8.93 35,240	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELEELEC1	0.07	15.15 0	775.83 28	0.00 0	448.33 16	0.00 0	1224.16 44	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELEELEC1	0.10	10.00 8	512.05 487	0.00 0	182.44 173	0.00 0	694.48 660	825.12
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEELEC1	0.17	5.75 1	294.28 57	0.00 0	42.80 8	0.00 0	337.08 65	400.49

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
07. Perimeter Canal Structures

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92		12.97
					5	275	0	114	0	389		
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59		
					40	2,453	384	22,247	0	25,084		25083.87
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEE1C1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39		
					6	374	0	3,692	0	4,066		4066.14
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEE1C1	0.42	2.40	122.79	0.00	802.50	0.00	925.29		
					2	146	0	953	0	1,099		1099.34
TOTAL Electrical	1.00	EA			2,630	150,868	27,000	144,414	1,663	323,945		323945.25

07.03.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note: Note: Material price from Concrete Modular Systems 727-945-1756 ATTN: Frederick Kennedy	1.00	EA	SIWSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	50586.44		
					130	7,180	1,676	41,730	0	50,586		50586.44
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	1.48		
					4	65	0	35	0	100		1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80		
					3	73	0	146	0	218		1090.80
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	631	0	631		126.26
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95		
					3	50	40	0	0	90		17.95
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17		
					2	46	0	0	0	46		0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22		
					3	57	0	0	0	57		0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23		
					3	61	0	0	0	61		0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10		
					0	5	4	81	0	90		18.10

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
07. Perimeter Canal Structures

U.S. Army Corps of Engineers  
West Storage Reservoir - South  
30% Submittal  
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CREW ID: NAT01A    UPB ID: UP01EA



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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
08.01. Gate CS1 Crest Spillway												
08. Crested Spillway												
08.01. Gate CS1 Crest Spillway												
08.01.02. Sheet Piling												
USR TF <02161 0001 > Steel Sheet Pile Cutoff		248.00	SF	CPIDB40	95.63	0.08	3.40	1.62	16.05	0.00	21.07	
						21	1,029	491	4,859	0	6,380	25.73
TOTAL Sheet Piling		1.00	EA			21	1,029	491	4,859	0	6,380	6380.15
08.01.03. Concrete												
08.01.03.01. Conduits												
08.01.03.01.10. Boxed Conduit												
08.01.03.01.10.01. Conduit Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute		59.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
						17	232	21	0	0	253	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		246.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
						22	406	0	205	0	611	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		3.46	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
						48	1,257	0	3,332	0	4,589	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		59.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	7,449	0	7,449	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		820.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						7	142	0	0	0	142	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish		820.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
						9	176	0	0	0	176	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish		820.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
						10	203	0	0	0	203	0.25
TOTAL Conduit Base Slab		1.00	EA			114	2,416	21	10,987	0	13,424	13423.68
08.01.03.01.10.02. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use		246.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
						22	406	0	97	0	504	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use		820.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
						80	1,502	0	939	0	2,441	2.98

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30% Submittal  
08. Crested Spillway

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08.01. Gate C51 Crest Spillway										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER			
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	820.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17	
					7	142		0	0	142	0.17	
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	55.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91	
					20	336	209	0	0	545	9.91	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	
					0	0	0	6,944	0	6,944	126.26	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20	
					44	1,162	0	3,082	0	4,244	1326.20	
TOTAL Top Slab	1.00	EA			173	3,549	209	11,062	0	14,820	14819.59	
08.01.03.01.10.03. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.13	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93	
					23	594		2,851	0	2,845	1241.93	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	36.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	
					0	0	0	4,545	0	4,545	126.26	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	36.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22	
					21	360	224	0	0	584	16.22	
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	984.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32	
					15	284	0	32	0	316	0.32	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1968.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90	
					217	4,102	0	1,600	0	5,702	2.90	
TOTAL Walls	1.00	EA			275	5,340	224	8,229	0	13,792	13792.42	
08.01.03.01.15. U-Shaped Conduit												
TOTAL Boxed Conduit	1.00	EA			563	11,305	454	30,277	0	42,036	42035.69	
08.01.03.01.15.01. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	65.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28	
					19	255	23	0	0	278	4.28	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	270.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49	
					25	446	0	225	0	671	2.49	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.80	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20	
					53	1,380	0	3,659	0	5,040	1326.20	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate C51 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		65.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
									8,207	0	8,207	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		900.00	SF	ACWACEF11	112.50	8	0.17	0.00	0.00	0.00	0.17	0.17
							156	0	0	0	156	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish		900.00	SF	ACWACEF11	90.63	10	0.22	0.00	0.00	0.00	0.22	0.22
							194	0	0	0	194	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish		900.00	SF	ACWACEF11	78.75	11	0.25	0.00	0.00	0.00	0.25	0.25
							223	0	0	0	223	0.25
TOTAL Base Slab		1.00	EA			126	2,653	23	12,092	0	14,768	14768.38
08.01.03.01.15.02. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		2.34	TON	SIWRROD4	0.38	25	278.93	0.00	963.00	0.00	1241.93	1241.93
							653	0	2,253	0	2,906	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		40.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
							0	0	5,050	0	5,050	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		40.00	CY	CLABC20	13.75	23	10.01	6.21	0.00	0.00	16.22	16.22
							400	248	0	0	649	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		1080.00	SF	ACWACEF11	67.50	16	0.29	0.00	0.03	0.00	0.32	0.32
							312	0	35	0	347	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		2160.00	SF	ACARC2	54.38	238	2.08	0.00	0.81	0.00	2.90	2.90
							4,502	0	1,757	0	6,258	2.90
TOTAL Walls		1.00	EA			302	5,867	248	9,095	0	15,210	15210.25
TOTAL U-Shaped Conduit												
		1.00	EA			428	8,520	272	21,187	0	29,979	29978.63
TOTAL Conduits												
		1.00	EA			991	19,825	725	51,464	0	72,014	72014.33
08.01.03.02. Weir Inlet												
08.01.03.02.01. Weir Inlet												
08.01.03.02.01.01. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute		98.00	CY	ULABC6	20.63	29	3.93	0.36	0.00	0.00	4.28	4.28
							385	35	0	0	420	4.28

LABOR ID: C43RES EQUIP ID: C43RES

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

TIME 09:25:13  
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08.01. Gate CSI Crest Spillway												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	230.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49		
					21	380		192	0	572		2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	7.18	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20		
					100	2,608		6,914	0	9,522		1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	98.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0			12,373	0	12,373		126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	1455.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17		
					13	252		0	0	252		0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	1455.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22		
					16	313		0	0	313		0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	1455.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25		
					18	360		0	0	360		0.25
TOTAL Base Slab	1.00	EA			197	4,297	35	19,480	0	23,812		23812.38
08.01.03.02.01.02. Weir												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	4.77	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					51	1,331		4,594	0	5,924		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	65.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0		8,207	0	8,207		126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	65.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					38	651	404	0	0	1,054		16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	876.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32		
					13	253		28	0	281		0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	364.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		
					40	759		296	0	1,055		2.90
TOTAL Weir	1.00	EA			142	2,993	404	13,125	0	16,521		16520.94
08.01.03.02.01.03. Transition To Conduit												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.68	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					7	190		655	0	845		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	9.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0		1,136	0	1,136		126.26

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	9.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						5	90	56	0	0	146	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	198.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						3	57	0	6	0	64	0.32
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	396.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						44	825	0	322	0	1,147	2.90
TOTAL Transition To Conduit		1.00	EA			59	1,162	56	2,120	0	3,338	3337.74
TOTAL Weir Inlet		1.00	EA			398	8,452	495	34,724	0	43,671	43671.06
TOTAL Weir Inlet		1.00	EA			398	8,452	495	34,724	0	43,671	43671.06
08.01.03.04. Stilling Basin												
08.01.03.04.01. Stilling Basin Parabolic Transition												
08.01.03.04.01.01. Walls												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	6.45	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						69	1,799	0	6,211	0	8,010	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	135.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	17,045	0	17,045	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	135.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						79	1,351	838	0	0	2,190	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	1984.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						29	573	0	64	0	637	0.32
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3968.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						438	8,270	0	3,227	0	11,497	2.90
TOTAL Walls		1.00	EA			614	11,993	838	26,547	0	39,379	39378.73
08.01.03.04.01.02. Base Slab												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	93.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
						27	365	33	0	0	398	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	378.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
						35	624	0	315	0	940	2.49

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UFO1EA

Wed 31 May 2006  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	4.45	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi					62	1,616	0	4,285	0	5,902	1326.20
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	93.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	11,742	0	11,742	126.26
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	675.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						6	117	0	0	0	117	0.17
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	675.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
						7	145	0	0	0	145	0.22
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	675.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
						9	167	0	0	0	167	0.25
TOTAL Base Slab		1.00	EA			145	3,035	33	16,343	0	19,411	19411.03
08.01.03.04.01.03. Top Slab												
AF AA <03150 7101 >	Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	90.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
						8	149	0	36	0	184	2.05
CIV AA <03150 1500 >	Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	640.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
						62	1,172	0	733	0	1,905	2.98
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	832.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						7	144	0	0	0	144	0.17
AF AA <03372 1600 >	Placing conc, elev slabs, over 10" thick, pumped	31.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	
						11	190	118	0	0	307	9.91
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	31.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	3,914	0	3,914	126.26
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	1.48	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
						21	538	0	1,425	0	1,963	1326.20
TOTAL Top Slab		1.00	EA			109	2,192	118	6,108	0	8,417	8417.41
TOTAL Stilling Basin Parabolic												
		1.00	EA			869	17,220	989	48,998	0	67,207	67207.17

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
08.01.03.04.02. Stilling Hydraulic Jump Basin											
08.01.03.04.02.01. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	9.23	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
					98	2,575	0	8,888	0	11,463	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	193.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	24,368	0	24,368	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	193.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	
					112	1,932	1,199	0	0	3,130	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	3120.00	SF	ACMACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	
					46	901	0	100	0	1,001	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	6240.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
					688	13,005	0	5,074	0	18,080	2.90
TOTAL Walls	1.00	EA			945	18,413	1,199	38,431	0	58,043	58042.54
08.01.03.04.02.02. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	110.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					32	432	39	0	0	471	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	459.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					42	758	0	383	0	1,141	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	5.27	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					73	1,914	0	5,075	0	6,989	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	110.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	13,889	0	13,889	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	600.00	SF	ACMACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					5	104	0	0	0	104	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	600.00	SF	ACMACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					7	129	0	0	0	129	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	600.00	SF	ACMACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					8	149	0	0	0	149	0.25
TOTAL Base Slab	1.00	EA			167	3,485	39	19,347	0	22,871	22871.41

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
08.01.03.04.02.03. Shear Key											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.10	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	2.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	66.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Shear Key	1.00	EA			10	185	12	402	0	600	600.38
08.01.03.04.02.04. Chute Blocks											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.01	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	0.30	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.30	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	35.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	20.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Chute Blocks	1.00	EA			3	58	2	65	0	124	124.34
08.01.03.04.02.05. End Sill											
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	50.00	SF	ACMACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



Wed 31 May 2006  
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DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.05	TON	SIWRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	
						1	14	0	48	0	62	1241.93
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		30.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	
						3	63	0	24	0	87	2.90
TOTAL End Sill		1.00	EA			5	101	6	200	0	308	307.54
08.01.03.04.02.06. Bridge Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use												
		93.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
						9	154	0	37	0	190	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use												
		240.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
						23	440	0	275	0	714	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish												
		480.00	SF	ACMACFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						4	83	0	0	0	83	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped												
		14.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	
						5	86	53	0	0	139	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi												
		14.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	1,768	0	1,768	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7												
		0.69	TON	SIWRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
						10	251	0	664	0	915	1326.20
TOTAL Bridge Slab		1.00	EA			51	1,013	53	2,744	0	3,809	3809.37
08.01.03.04.02.07. Top Slab												
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7'-12" high, 4 use												
		48.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
						4	79	0	19	0	98	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use												
		220.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
						21	403	0	252	0	655	2.98
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish												
		220.00	SF	ACMACFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
						2	38	0	0	0	38	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped												
		11.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	
						4	67	42	0	0	109	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi												
		11.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	1,389	0	1,389	126.26

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATOLA

UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.01. Gate CS1 Crest Spillway		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		0.51	TON	SIWRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
TOTAL Top Slab		1.00	EA			7	185	0	491	0	676	1326.20
TOTAL Stilling Hydraulic Jump Basin		1.00	EA			39	773	42	2,151	0	2,965	2965.44
TOTAL Stilling Basin		1.00	EA			1,219	24,027	1,354	63,340	0	88,721	88721.03
TOTAL Concrete		1.00	EA			2,088	41,247	2,343	112,338	0	155,928	155928.20
08.01.06. Rip Rap		1.00	EA			3,477	69,525	3,563	198,526	0	271,614	271613.59
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas		347.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene		1388.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY		694.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	
TOTAL Rip Rap		1.00	EA			416	9,049	5,858	28,070	0	42,977	42977.10
08.01.90. Miscellaneous												
MIL AA <03198 1050 > Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb		165.00	LF	ACARCARP1	16.25	0.06	1.23	0.00	6.26	0.00	7.49	
B MIL AA <05523 0530 > 2 1/2" Dia Steel railing 42" High		39.00	LF	SIWSE4	16.61	0.24	15.00	0.57	27.82	0.00	43.39	
B RSM AA <05130 0450 > 10' Dewatering Needle Beam		1.00	EA	SIWSE3	0.07	44.78	2332.74	170.43	3210.00	0.00	5713.17	
B RSM AA <05130 0450 > Needle Beam Buldhead		1.00	EA	SIWSE3	0.34	8.96	466.55	34.09	535.00	0.00	1035.63	
TOTAL Miscellaneous		1.00	EA			73	3,588	227	5,863	0	9,677	9677.43
TOTAL Gate CS1 Crest Spillway		1.00	EA			3,986	83,192	10,139	237,317	0	330,648	330648.27

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
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30% Submittal  
08. Crested Spillway

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08.02. Gate CS2 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
08.02. Gate CS2 Crest Spillway											
08.02. Gate CS2 Crest Spillway											
08.02.02. Sheet Piling											
USR TF <02161 0001 > Steel Sheet Pile Cutoff	248.00	SF	CPIDB40	95.63	0.08	3.40	1.52	16.05	0.00	21.07	
					21	1,029	491	4,859	0	6,380	25.73
TOTAL Sheet Piling	1.00	EA			21	1,029	491	4,859	0	6,380	6380.15
08.02.03. Concrete											
08.02.03.01. Conduits											
08.02.03.01.10. Boxed Conduit											
08.02.03.01.10.01. Conduit Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	59.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	
					17	232	21	0	0	253	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	246.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	
					22	406	0	205	0	611	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.42	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	
					48	1,242	0	3,293	0	4,536	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	59.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
					0	0	0	7,449	0	7,449	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	820.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	
					7	142	0	0	0	142	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	820.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	
					9	176	0	0	0	176	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	820.00	SF	ACWACEFI1	78.75	0.01	0.25	0.00	0.00	0.00	0.25	
					10	203	0	0	0	203	0.25
TOTAL Conduit Base Slab	1.00	EA			114	2,401	21	10,948	0	13,371	13370.63
08.02.03.01.10.02. Top Slab											
AF AA <03150 7101 > Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	246.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.40	0.00	2.05	
					22	406	0	97	0	504	2.05
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	820.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	
					80	1,502	0	939	0	2,441	2.98

LABOR ID: C43RES EQUIP ID: C43RES

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08.02. Gate CS2 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	820.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	55.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	3.16	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Top Slab	1.00	EA			173	3,534	209	11,024	0	14,767	14766.54
08.02.03.01.10.03. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	2.10	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	36.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	36.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	984.00	SF	ACWACEFI1	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1968.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls	1.00	EA			275	5,332	224	8,200	0	13,755	13755.17
08.02.03.01.15. U-Shaped Conduit											
TOTAL Boxed Conduit	1.00	EA			562	11,268	454	30,171	0	41,892	41892.34
08.02.03.01.15.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	42.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	174.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.42	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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08.02. Gate CS2 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	42.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	580.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	580.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	580.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25	0.25
TOTAL Base Slab	1.00	EA			81	1,700	15	7,779	0	9,494	9493.59
08.02.03.01.15.02. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	1.50	TON	SINRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	28.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	26.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	696.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	1392.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls	1.00	EA			195	3,781	161	5,882	0	9,824	9823.89
TOTAL U-Shaped Conduit											
TOTAL Conduits	1.00	EA			276	5,481	177	13,660	0	19,317	19317.48
08.02.03.02. Weir Inlet											
08.02.03.02.01. Weir Inlet											
08.02.03.02.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	98.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
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08. Crested Spillway

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08.02. Gate CS2 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	230.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.83	0.00	2.49	
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	7.18	TON	SIWRDMD4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	2.49
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	98.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	6,914	0	9,522	1326.20
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	1455.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	126.26	0.00	126.26	
MIL AA <03396 0100 >	Finishing floors, monolithic, float finish	1455.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	12,373	0	12,373	126.26
MIL AA <03396 0150 >	Finishing floors, monolithic, broom finish	1455.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.00	0.17	0.17
TOTAL Base Slab		1.00	EA			197	4,297	35	19,480	0	0	23,812	23812.38
08.02.03.02.01.02. Weir													
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	4.77	TON	SIWRDMD4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	65.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	4,594	0	5,924	1241.93
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	65.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	126.26	0.00	126.26	
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	876.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	8,207	0	8,207	126.26
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	364.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.00	0.00	16.22	16.22
TOTAL Weir		1.00	EA			142	2,993	404	13,125	0	0	16,521	16520.94
08.02.03.02.01.03. Transition To Conduit													
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	0.68	TON	SIWRDMD4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	9.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	655	0	845	1241.93

LABOR ID: C43RES EQUIP ID: C43RES

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08.02. Gate CS2 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	9.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						5	90	56	0	0	146	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	198.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						3	57	0	6	0	64	0.32
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	396.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						44	825	0	322	0	1,147	2.90
TOTAL Transition To Conduit		1.00	EA			59	1,162	56	2,120	0	3,338	3337.74
TOTAL Weir Inlet		1.00	EA			398	8,452	495	34,724	0	43,671	43671.06
TOTAL Weir Inlet		1.00	EA			398	8,452	495	34,724	0	43,671	43671.06
08.02.03.04. Stilling Basin												
08.02.03.04.01. Stilling Basin Parabolic Transition												
08.02.03.04.01.01. Walls												
M MIL AA <03217 0700 >	Reinforcing in place, walls, #3 to #7	4.42	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
						47	1,233	0	4,256	0	5,489	1241.93
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	109.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	13,762	0	13,762	126.26
MIL AA <03372 5100 >	Placing conc, walls, 12" thick, pumped	109.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
						63	1,091	677	0	0	1,768	16.22
MIL AA <03398 0010 >	Finishing walls, break ties & patch voids	1100.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32	0.32
						16	318	0	35	0	353	0.32
MIL AA <03182 2150 >	Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2200.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
						243	4,585	0	1,789	0	6,374	2.90
TOTAL Walls		1.00	EA			370	7,227	677	19,843	0	27,747	27746.86
08.02.03.04.01.02. Base Slab												
MIL AA <03372 4600 >	Placing conc, slab on grade, over 6" thick, direct chute	64.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
						19	251	23	0	0	274	4.28
MIL AA <03170 3060 >	Forms in place, SOG, edge forms, wood, over 12", 4 use	284.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
						26	469	0	237	0	706	2.49

LABOR ID: C43RES EQUIP ID: C43RES

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08. Crested Spillway

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08.02. Gate C32 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		2.60	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	
						36	944	0	0	2,504	0	3,448	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		64.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	0	8,081	0	8,081	126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish		465.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
						4	81	0	0	0	0	81	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish		465.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.00	0.22	0.22
						5	100	0	0	0	0	100	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish		465.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.00	0.25	0.25
						6	115	0	0	0	0	115	0.25
TOTAL Base Slab		1.00	EA			96	1,960	23	10,821	0	0	12,805	12804.58
TOTAL Stilling Basin Parabolic													
		1.00	EA			465	9,187	700	30,665	0	0	40,551	40551.45
08.02.03.04.02. Stilling Hydraulic Jump Basin													
08.02.03.04.02.01. Walls													
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		3.23	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	
						34	901	0	0	3,110	0	4,011	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		79.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	
						0	0	0	0	9,975	0	9,975	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped		79.00	CY	CLABC20	13.75	0.58	10.01	6.21	491	0.00	0.00	16.22	
						46	791	491	0	0	0	1,281	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids		1226.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
						18	354	0	0	39	0	393	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood		2451.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	
						270	5,108	0	0	1,993	0	7,102	2.90
TOTAL Walls		1.00	EA			369	7,154	491	15,118	0	0	22,762	22762.26
08.02.03.04.02.02. Base Slab													
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute		59.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	
						17	232	21	0	0	0	253	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use		293.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.83	0.00	2.49	
						27	484	0	0	245	0	728	2.49

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



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30% Submittal  
08. Crested Spillway

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08.02. Gate CS2 Crest Spillway												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.40	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20		
					33	872	0	2,311	0	3,183		1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	59.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	7,449	0	7,449		126.26
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	323.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17		0.17
					3	56	0	0	0	56		0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	323.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22		0.22
					4	69	0	0	0	69		0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	323.00	SF	ACWACEF11	78.75	0.01	0.25	0.00	0.00	0.00	0.25		0.25
					4	80	0	0	0	80		0.25
TOTAL Base Slab	1.00	EA			88	1,792	21	10,005	0	11,819		11818.70
08.02.03.04.02.03. Shear Key												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.09	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					1	25	0	87	0	112		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	253	0	253		126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	2.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					1	20	12	0	0	32		16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	66.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		
					7	138	0	54	0	191		2.90
TOTAL Shear Key	1.00	EA			9	183	12	393	0	588		587.96
08.02.03.04.02.04. Chute Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.01	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					0	3	0	10	0	12		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	0.30	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	38	0	38		126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.30	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					0	3	2	0	0	5		16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	35.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.03	0.00	0.32		
					1	10	0	1	0	11		0.32

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
08. Crested Spillway

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08.02. Gate CS2 Crest Spillway	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	20.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
TOTAL Chute Blocks	1.00	EA			3	58	2		65	0	124	124.34
08.02.03.04.02.05. Baffle Blocks												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.02	TON	SIWRRDM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	0.50	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	0.50	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	96.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	96.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
TOTAL Baffle Blocks	1.00	EA			13	238	3		164	0	405	405.04
08.02.03.04.02.06. End Sill												
MIL AA <03398 0010 > Finishing walls, break ties & patch voids	50.00	SF	ACWACEF11	67.50	0.01	0.29	0.00	0.00	0.03	0.00	0.32	0.32
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	1.00	CY	CIABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	1.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.04	TON	SIWRRDM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	1241.93
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	30.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.00	0.81	0.00	2.90	2.90
TOTAL End Sill	1.00	EA			5	98	6		191	0	295	295.12

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UF01EA

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08. Crested Spillway

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08.02. Gate C82 Crest Spillway		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
08.02.03.04.02.07. Bridge Slab													
AF AA <03150 7101 >	Forms in place, alt price, elev slab, edge, 7"-12" high, 4 use	93.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.00	0.40	0.00	2.05	2.05
						9	154	0	0	37	0	190	
CIV AA <03150 1500 >	Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	240.00	SF	ACARC2	61.88	0.10	1.83	0.00	0.00	1.14	0.00	2.98	2.98
						23	440	0	0	275	0	714	
MIL AA <03396 0010 >	Finishing floors, monolithic, screed finish	480.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.00	0.17	0.17
						4	83	0	0	0	0	83	
AF AA <03372 1600 >	Placing conc, elev slabs, over 10" thick, pumped	14.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	9.91
						5	86	53	0	0	0	139	
M RSM AA <03326 0300 >	Concrete ready mix, regular weight, 4000 psi	14.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
						0	0	0	0	1,768	0	1,768	
M MIL AA <03217 0600 >	Reinforcing in place, slab on grade, #3 to #7	0.59	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	1326.20
						8	214	0	0	568	0	782	
TOTAL Bridge Slab		1.00	EA			49	976	53	0	2,647	0	3,677	3676.75
08.02.06. Rip Rap													
TOTAL Stilling Hydraulic Jump Basin		1.00	EA			536	10,500	589	0	28,582	0	39,670	39670.17
TOTAL Stilling Basin		1.00	EA			1,001	19,686	1,288	0	59,247	0	80,222	80221.62
TOTAL Concrete		1.00	EA			2,236	44,887	2,413	0	137,802	0	185,103	185102.51
08.02.06. Rip Rap													
MIL AA <02244 1510 >	Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	267.00	CY	COFGB36C	54.38	0.09	3.39	4.02	0.00	25.96	0.00	33.37	33.37
						25	904	1,074	0	6,931	0	8,909	
CIV AA <02250 2140 >	Geotextile fabric, 120 mil thick, non-woven polypropylene	1067.00	SY	ULABA2	150.00	0.02	0.41	0.15	0.00	1.38	0.00	1.93	1.93
						21	434	157	0	1,473	0	2,064	
MIL AA <02270 1000 >	Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	533.00	CY	CODEB3A	9.75	0.51	10.53	6.14	0.00	24.71	0.00	41.37	41.37
						273	5,614	3,270	0	13,168	0	22,053	
TOTAL Rip Rap		1.00	EA			319	6,952	4,501	0	21,572	0	33,026	33025.52
08.02.90. Miscellaneous													
MIL AA <03198 1050 >	Waterstop, PVC, dumbbell, 9" wide, 3/8" thick, center bulb	92.00	LF	ACARCARP1	16.25	0.06	1.23	0.00	0.00	6.26	0.00	7.49	7.49
						6	113	0	0	576	0	689	
B MIL AA <05523 0530 >	2 1/2" Dia Steel railing 42" High	26.00	LF	SIWSE4	16.61	0.24	15.00	0.57	0.00	27.82	0.00	43.39	43.39
						6	390	15	0	723	0	1,128	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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30% Submittal  
08. Crested Spillway

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08.02. Gate CS2 Crest Spillway											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
B RSM AA <05130 0450 > 10' Dewatering Needle Beam	1.00	EA	SIWSE3	0.07	44.78 45	2332.74 2,333	170.43 170	3210.00 3,210	0.00 0	5713.17 5,713	5713.17
B RSM AA <05130 0450 > Needle Beam Buidhead	1.00	EA	SIWSE3	0.34	8.96 9	466.55 467	34.09 34	535.00 535	0.00 0	1035.63 1,036	1035.63
TOTAL Miscellaneous	1.00	EA			66	3,303	219	5,044	0	8,566	8566.35
-----											
TOTAL Gate CS2 Crest Spillway	1.00	EA			2,642	56,171	7,625	169,278	0	233,075	233074.52
TOTAL Crested Spillway	1.00	EA			6,628	139,363	17,765	406,595	0	563,723	563722.79
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LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.01. Gate S7	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09. Gated Culvert											
09.01. Gate S7											
09.01.03. Concrete											
09.01.03.01. Slab On Grade											
09.01.03.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	240.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					70	942	86	0	0	1,028	
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	390.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					36	644	0	325	0	969	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	21.70	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					301	7,881	0	20,897	0	28,778	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	240.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	30,302	0	30,302	
TOTAL Base Slab	1.00	EA			407	9,467	86	51,525	0	61,079	61079.53
TOTAL Slab On Grade	1.00	EA			407	9,467	86	51,525	0	61,079	61079.53
09.01.03.03. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	26.51	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					283	7,395	0	25,529	0	32,924	
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	238.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	30,050	0	30,050	
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	238.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					138	2,382	1,478	0	0	3,860	
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	8560.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					944	17,841	0	6,961	0	24,802	
TOTAL Walls	1.00	EA			1,365	27,617	1,478	62,540	0	91,635	91635.50

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

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30% Submittal  
09. Gated Culvert

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09.01. Gate S7	QUANTITY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.01.03.07. Elevated Slabs										
09.01.03.07.01. Elevated Slab										
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20', high 4 use	4450.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
					432	8,150	0	5,095	0	13,245
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	155.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91
					55	948	588	0	0	1,536
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	155.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	19,570	0	19,570
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	15.53	TON	SINRRDM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
					216	5,640	0	14,955	0	20,596
TOTAL Elevated Slab	1.00	EA		702	14,739	588	39,620	0	54,947	54947.43
TOTAL Elevated Slabs	1.00	EA		702	14,739	588	39,620	0	54,947	54947.43
09.01.03.08. Beams										
09.01.03.08.01. Needle Beams										
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.50	TON	SINRRDM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93
					5	139	0	482	0	621
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	505	0	505
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	4.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38
					4	68	54	0	0	122
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	192.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42
					24	462	0	195	0	657
TOTAL Needle Beams	1.00	EA		34	669	54	1,182	0	1,904	1904.40
TOTAL Beams	1.00	EA		34	669	54	1,182	0	1,904	1904.40
TOTAL Concrete	1.00	EA		2,508	52,492	2,206	154,867	0	209,566	209565.86
09.01.04. Erosion Control System										
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	2680.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37
					247	9,079	10,781	69,568	0	89,427
										33.37

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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09.01. Gate S7	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	457.00	SY	ULABA2	150.00	0.02	0.41	0.15	0.00	1.38	0.00	1.93	1.93
TOTAL Erosion Control System	1.00	JB			256	9,264	10,848	70,199	0	0	90,311	90310.93
09.01.05. Gates												
USR AA <05150 0001 > Slide Gate 10' x 10' SST	1.00	EA	SINSE21	0.01	597.01	35260.72	7565.63	52965.00	0.00	0.00	95791.35	95791.35
USR AA <05150 0001 > Weir Gate 10' x 5' SST	1.00	EA	SINSE21	0.03	289.63	17696.39	3796.98	26750.00	0.00	0.00	48243.37	48243.37
TOTAL Gates	1.00	EA			887	52,957	11,363	79,715	0	0	144,035	144034.73
09.01.06. Stop Logs												
USR AA <05548 0611 > Stop Log	560.00	SF	SINSE4	8.93	0.45	27.93	1.06	85.60	0.00	0.00	114.58	114.58
TOTAL Stop Logs	1.00	EA			251	15,640	591	47,936	0	0	64,167	64166.65
09.01.07. Rip Rap												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	319.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	0.00	33.37	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	1275.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	0.00	1.93	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	637.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	0.00	41.37	41.37
TOTAL Rip Rap	1.00	EA			382	8,308	5,379	25,778	0	0	39,466	39465.89
09.01.11. Electrical												
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELEELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	0.00	4029.48	4029.48
USR EL <16119 0002 > Actuator Starter & Remote Cntrlis	2.00	EA	EELEELEC1	0.01	92.59	4741.20	0.00	4815.00	0.00	0.00	9556.20	9556.20
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	700.00	0.00	832	700.00	700.00

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPE ID: UP01EA

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09. Gated Culvert

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09.01. Gate S7		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16181 5999	> Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	0.00	363.80	0.00	529.36	41
RSM EL <16324 0100	> Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEE1C1	0.40	2.50	128.01	0.00	0.00	29.48	0.00	157.49	187
AF EL <16622 5230	> HID fxt, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00	0.00	391.89	0.00	578.68	8,938
USR EL <16611 4100	> Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00	0.00	181.90	0.00	310.41	2,582
USR EL <16617 0001	> Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44	85.16	0.00	214.00	0.00	798.59	9,488
MIL EL <16617 1040	> Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89	62.38	0.00	903.35	0.00	1331.62	15,821
USR EL <16617 0002	> Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89	17.03	0.00	450.10	0.00	577.02	686
MIL EL <16338 4400	> Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEE1C1	0.21	4.85	248.57	0.00	0.00	514.97	0.00	763.54	907
USR EL <16181 0105	> Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEE1C1	0.50	2.00	102.41	0.00	0.00	133.75	0.00	236.16	3,648
MIL EL <16325 4320	> Panelboard assem, 12-20A brkt, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEE1C1	0.12	8.47	433.94	0.00	0.00	332.77	0.00	766.71	911
USR EL <16323 0001	> Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEE1C1	0.42	2.40	122.79	0.00	0.00	802.50	0.00	925.29	1,099
USR EL <16333 1401	> Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	0.00	128.40	0.00	196.70	234
USR EL <03000 0001	> Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	0.00	107.00	0.00	224.82	267
MIL EL <02230 4020	> Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	0.00	8.93	15,179

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA



Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

TIME 09:25:13  
DETAIL PAGE 243

09.01. Gate S7		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEELEC1	0.14	7.25	371.05	0.00		69.02	0.00	440.07	
						2	95	0		18	0	112	522.84
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEELEC1	0.13	8.00	409.64	0.00		105.93	0.00	515.57	
						26	1,574	0		407	0	1,982	612.55
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEELEC1	0.08	12.35	632.16	0.00		293.72	0.00	925.88	
						19	1,164	0		341	0	1,705	1100.03
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00		1049.67	0.00	2298.57	
						2	111	0		94	0	205	2730.93
MIL EL <16232 2482 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEELEC1	3.38	0.30	15.17	0.00		32.53	0.00	47.70	
						0	18	0		39	0	57	56.67
USR EL <16153 0014 >	Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00		0.27	0.00	4.38	
						4	244	0		16	0	260	5.20
USR EL <16153 0013 >	Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00		0.54	0.00	5.16	
						8	495	0		57	0	552	6.13
USR EL <16153 0012 >	Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00		0.91	0.00	6.05	
						1	49	0		9	0	58	7.19
USR EL <16153 0010 >	Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00		3.21	0.00	10.92	
						2	110	0		46	0	156	12.97
MIL EL <16711 0500 >	Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02		321.00	0.00	801.57	
						8	494	77		381	0	952	952.34
MIL EL <16333 0620 >	Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held	2.00	EA	EELEEELEC1	0.41	2.42	123.98	0.00		269.11	0.00	393.09	
	NOTE: Use for LCI & LC2					5	295	0		639	0	934	467.03
MIL EL <16338 5510 >	Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEELEC1	0.31	3.20	163.86	0.00		354.06	0.00	517.92	
						3	195	0		421	0	615	615.34
USR EL <16232 2483 >	Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEELEC1	2.89	0.35	17.70	0.00		53.50	0.00	71.20	
						0	21	0		64	0	85	84.59
USR EL <16153 0011 >	Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00		1.12	0.00	7.29	
						1	44	0		8	0	52	8.66
USR EL <16153 0012 >	Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00		0.91	0.00	6.05	
						1	86	0		15	0	101	7.19
USR EL <16153 0013 >	Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00		0.80	0.00	5.43	
						2	121	0		21	0	142	6.45

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

TIME 09:25:13  
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09.01. Gate S7		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16153 0014 >	Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	
						38	2,335	0	152	0	2,487	5.20
USR EL <16153 0016 >	Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	
						4	264	0	10	0	274	5.08
MIL EL <16018 0520 >	Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEEE1C1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	
						16	989	0	433	0	1,422	5.60
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEEE1C1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	
						102	6,233	0	3,089	0	9,321	7.83
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEEE1C1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	
						9	548	0	373	0	921	10.23
MIL EL <16712 1030 >	Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	
						99	5,990	0	2,156	0	8,146	2.55
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	
						56	3,407	0	1,794	0	5,201	4.13
MIL EL <16018 0520 >	Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEEE1C1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	
						5	292	0	128	0	420	5.60
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEEE1C1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	
						24	1,433	0	755	0	2,188	4.13
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	
						28	1,685	0	606	0	2,291	2.55
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEEE1C1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	
						2	122	0	83	0	205	10.23
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEEE1C1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	
						0	26	0	13	0	39	7.83
MIL EL <16712 1020 >	Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEEE1C1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	
						2	117	0	32	0	150	2.14
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEEE1C1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	
						46	2,789	0	1,004	0	3,793	2.55
RSM EL <16119 0920 >	Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MUF	EELEEE1C1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	
						0	26	0	4	0	29	425.73
CIV EL <16153 0320 >	Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	
						13	770	0	567	0	1,338	111.46

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

TIME 09:25:13  
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09.01. Gate S7		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEEE1	0.13	8.00	409.64	0.00	0.00	105.93	0.00	515.57	
						45	2,713	0	0	702	0	3,414	612.55
MIL EL <16326 0100 >	Panelboard&ld ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEE1	1.25	0.80	40.96	0.00	0.00	10.70	0.00	51.66	
						2	97	0	0	25	0	123	61.38
MIL EL <16326 0310 >	Panelboard&ld ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEE1	1.00	1.00	51.21	0.00	0.00	20.33	0.00	71.54	
						2	122	0	0	48	0	170	84.99
MIL EL <16325 4340 >	Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V	1.00	EA	EELEEE1	0.08	12.32	630.60	0.00	0.00	428.54	0.00	1059.14	
						12	749	0	0	509	0	1,258	1258.36
NOTE: Use for distribution panel L													
MIL EL <16337 1700 >	Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEE1	0.24	4.20	215.15	0.00	0.00	293.18	0.00	508.33	
						4	256	0	0	348	0	604	603.94
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEE1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	
						14	868	0	0	730	0	1,598	2730.93
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEE1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	
						2	119	0	0	55	0	174	1100.03
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEE1	0.14	7.25	371.05	0.00	0.00	69.02	0.00	440.07	
						48	2,916	0	0	542	0	3,459	522.84
MIL EL <16181 6000 >	Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	0.00	360.59	0.00	526.15	
						0	3	0	0	6	0	9	625.11
MIL EL <16181 6310 >	Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	0.00	19.57	0.00	85.88	
						27	1,654	0	0	488	0	2,143	102.04
CIV EL <16213 2744 >	Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEE1	0.63	1.60	81.93	0.00	0.00	69.67	0.00	151.60	
						2	97	0	0	83	0	180	180.11
MIL EL <16213 0380 >	Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEE1	0.46	2.16	110.59	0.00	0.00	69.98	0.00	180.57	
						6	394	0	0	249	0	644	214.54
MIL EL <16213 0330 >	Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D	1.00	EA	EELEEE1	0.53	1.90	97.53	0.00	0.00	44.60	0.00	142.13	
						2	116	0	0	53	0	169	168.87
NOTE: Use for 12"x 18" x 6"													
USR EL <16820 3580 >	Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	0.00	7490.00	0.00	18763.03	
						439	26,787	0	0	17,798	0	44,585	22292.35
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEE1	22.50	0.04	2.28	0.00	0.00	1.20	0.00	3.47	
						25	1,501	0	0	790	0	2,291	4.13

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

TIME 09:25:13  
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09.01. Gate S7		QUANTITY	UCM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16869 0090 >	Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	0.00	314.78	
						3	183		0	191	0	374	373.99
MIL EL <16181 6310 >	Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	0.00	85.88	
	NOTE: Use for 2/0 cadweld					1	79		0	23	0	102	102.04
USR EL <16000 0001 >	Concrete antennae pole					75.69	2088.43	0.00	3210.00	0.00	0.00	5298.43	
	NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	76	2,481	0	3,814	0	0	6,295	6295.07
MIL EL <16338 5510 >	Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEELECI	0.31	3.19	163.59	0.00	354.06	0.00	0.00	517.66	
						13	777		0	1,683	0	2,460	615.03
MIL EL <16313 9650 >	Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	0.00	1299.60	
						17	1,018		0	2,070	0	3,088	1544.06
CIV EL <16213 1710 >	Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R	1.00	EA	EELEELECI	0.25	4.00	204.82	0.00	363.73	0.00	0.00	568.55	
	NOTE: Use for RTU enclosure					4	243		0	432	0	675	675.49
USR EL <16333 1401 >	Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	0.00	196.70	
						1	81		0	153	0	234	233.70
USR EL <16711 0011 >	Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	0.00	700.00	832	831.67
RSM EL <16324 0100 >	Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELECI	0.40	2.50	128.01	0.00	29.48	0.00	0.00	157.49	
						3	152		0	35	0	187	187.12
MIL EL <16338 4400 >	Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEELECI	0.21	4.85	248.57	0.00	514.97	0.00	0.00	763.54	
						10	591		0	1,224	0	1,814	907.16
USR EL <13810 5471 >	Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	0.00	377.55	
						5	321		0	127	0	449	448.57
USR EL <13810 0001 >	Limit and Rotary Switches	6.00	EA	MSHMQ20	0.59	4.23	111.98	0.00	26.75	0.00	0.00	138.73	
						25	798		0	191	0	989	164.83
USR EL <13810 0002 >	Push Button Stations	4.00	EA	MSHMQ20	0.63	4.00	105.93	0.00	53.50	0.00	0.00	159.43	
						16	503		0	254	0	758	189.42
USR EL <16153 0016 >	Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	0.00	5.16	
						12	704		0	81	0	785	6.13

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

TIME 09:25:13  
DETAIL PAGE 247

09.01. Gate S7		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16153 0014 >	Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	
AF EL <16232 2480 >	Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEEELEC1	3.38	0.30	15.17	0.00	30.82	0.00	45.99	5.14
MIL EL <16234 0160 >	Wiring device, concealed switch, 120 volt, 20 amp, SPST	2.00	EA	EELEEELEC1	1.38	0.73	37.24	0.00	9.68	0.00	46.92	219
MIL EL <16617 3000 >	Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	54.64
MIL EL <16617 3500 >	Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	111
USR EL <16617 3300 >	Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	182
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELEEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	1,472
MIL EL <16181 6020 >	Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	736.09
USR EL <16865 0125 >	Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	1,820
MIL EL <16611 3030 >	Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	910.17
USR EL <16611 0001 >	Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	1,383
B USR EL <16622 3010 >	Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	1,621
MIL EL <16622 3060 >	Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	1,416
MIL EL <16611 4120 >	Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80	2,099

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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09.01. Gate S7										TOTAL COST UNIT COST		
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER			
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, Chain trencher	3320.00	LF	COETR23	33.25	0.11 358	4.64 18,289	4.30 16,951	0.00 0	0.00 0	8.93 35,240	10.61	
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELEEE1	0.07	15.15 0	775.83 28	0.00 0	448.33 16	0.00 0	1224.16 44	1454.43	
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELEEE1	0.10	10.00 8	512.05 487	0.00 0	182.44 173	0.00 0	694.48 660	825.12	
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEEE1	0.17	5.75 1	294.28 57	0.00 0	42.80 8	0.00 0	337.08 65	400.49	
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15 5	7.71 275	0.00 0	3.21 114	0.00 0	10.92 389	12.97	
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68 40	2064.57 2,453	323.02 384	18725.00 22,247	0.00 0	21112.59 25,084	25083.87	
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEE1	0.16	6.15 6	315.11 374	0.00 0	3107.28 3,692	0.00 0	3422.39 4,066	4066.14	
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEE1	0.42	2.40 2	122.79 146	0.00 0	802.50 953	0.00 0	925.29 1,099	1099.34	
TOTAL Electrical	1.00	EA			2,562	146,775	27,000	125,345	1,663	300,783	300783.45	
09.01.15. Equipment Building												
USR AA <03450 0001 > Precast Concrete Building Note: Note: Material price from Concrete Modular Systems 727-945-1756 ATTN: Frederick Kennedy	1.00	EA	SIWSE7A	0.06	130.08 130	7180.22 7,180	1676.22 1,676	41730.00 41,730	0.00 0	50586.44 50,586	50586.44	
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARC1	75.00	0.05 4	0.96 65	0.00 0	0.51 35	0.00 0	1.48 100	1.48	
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89 3	363.20 73	0.00 0	727.60 146	0.00 0	1090.80 218	1090.80	
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 631	0.00 0	126.26 631	126.26	
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58 3	10.01 50	7.94 40	0.00 0	0.00 0	17.95 90	17.95	
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEF11	112.50	0.01 2	0.17 46	0.00 0	0.00 0	0.00 0	0.17 46	0.17	
Currency in DOLLARS										CREW ID: NAT01A UFB ID: UFB01EA		
LABOR ID: C43RES EQUIP ID: C43RES												

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09.01. Gate S7	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACMACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	18.10
TOTAL Equipment Building	1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
09.01.95. Controls											
USR MC <15743 0001 > Dewatering Gate	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Level Control Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	21000	LF	CODBB54	90.63	0.01	0.47	0.13	0.00	0.00	0.60	0.60
USR MC <15743 0001 > Control Conduit & Cable	21000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	7.28
TOTAL Controls	1.00	EA			2,514	93,111	3,435	120,712	0	217,258	217257.87
TOTAL Gate S7	1.00	EA			9,517	386,084	62,542	667,175	1,663	1,117,465	1117465

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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09.02. Gate S9	QUANTITY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.02. Gate S9										
09.02.03. Concrete										
09.02.03.01. Slab On Grade										
09.02.03.01.01. Base Slab										
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	100.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28
					29	393	36	0	0	428
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	165.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49
					15	272	0	138	0	410
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	9.04	TON	SINRR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
					126	3,283	0	8,706	0	11,989
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	100.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	12,626	0	12,626
TOTAL Base Slab	1.00	EA		170	3,948	36	21,469	0	25,453	25453.39
09.02.03.03. Walls										
09.02.03.03.01. Elevated Slabs										
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	9.80	TON	SINRR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93
					105	2,734	0	9,437	0	12,171
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	88.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	11,111	0	11,111
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	88.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22
					51	881	547	0	0	1,427
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	4000.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90
					441	8,337	0	3,253	0	11,590
TOTAL Walls	1.00	EA		597	11,951	547	23,801	0	36,299	36298.74
09.02.03.07. Elevated Slabs										
09.02.03.07.01. Elevated Slab										
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	1230.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
					119	2,253	0	1,408	0	3,661
										2.98

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UFB ID: UP01EA



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09.02. Gate S9	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
RF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	40.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					14	245	152	0	0	396	396
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	40.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	5,050	0	5,050	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					56	1,453	0	3,852	0	5,305	5,305
TOTAL Elevated Slab	1.00	EA			189	3,950	152	10,311	0	14,413	14412.63
TOTAL Elevated Slabs	1.00	EA			189	3,950	152	10,311	0	14,413	14412.63
09.02.03.08. Beams											
09.02.03.08.01. Needle Beams											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.40	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					4	112	0	385	0	497	497
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	379	0	379	379
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	3.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38
					3	51	40	0	0	91	91
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	120.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
					15	289	0	122	0	411	411
TOTAL Needle Beams	1.00	EA			22	451	40	886	0	1,377	1377.24
TOTAL Beams	1.00	EA			22	451	40	886	0	1,377	1377.24
TOTAL Concrete	1.00	EA			978	20,301	775	56,467	0	77,542	77541.99
09.02.04. Erosion Control System											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	683.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					63	2,314	2,747	17,729	0	22,791	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	121.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					2	49	18	167	0	234	234
TOTAL Erosion Control System	1.00	JB			65	2,363	2,765	17,896	0	23,025	23024.58

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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09.02. Gate S9	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.02.05. Gates												
USR AA <05150 0001 > Slide Gate 6' x 6' SST	1.00	EA	SINSE21	0.03	229.89	13577.41	2913.20	18725.00	0.00	0.00	35215.61	
					230	13,577	2,913	18,725	0	0	35,216	35215.61
USR AA <05150 0001 > Weir Gate 6' x 3' SST	1.00	EA	SINSE21	0.07	112.20	6626.84	1421.87	9416.00	0.00	0.00	17464.71	
					112	6,627	1,422	9,416	0	0	17,465	17464.71
TOTAL Gates	1.00	EA			342	20,204	4,335	28,141	0	0	52,680	52680.32
09.02.06. Stop Logs												
USR AA <05548 0611 > Stop Log	228.00	SF	SINSE4	8.93	0.45	27.93	1.06	85.60	0.00	0.00	114.58	
					102	6,368	241	19,517	0	0	26,125	114.58
TOTAL Stop Logs	1.00	EA			102	6,368	241	19,517	0	0	26,125	26124.99
09.02.07. Rip Rap												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	169.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	0.00	33.37	
					16	572	680	4,387	0	0	5,639	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	676.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	0.00	1.93	
					14	275	100	933	0	0	1,307	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	338.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	0.00	41.37	
					173	3,560	2,074	8,351	0	0	13,985	41.37
TOTAL Rip Rap	1.00	EA			202	4,407	2,853	13,671	0	0	20,931	20931.21
09.02.11. Electrical												
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELEEE1C1	0.03	36.90	1889.48	0.00	2140.00	0.00	0.00	4029.48	
					37	2,245	0	2,543	0	0	4,787	4787.43
USR EL <16119 0002 > Actuator Starter & Remote Cntrls	2.00	EA	EELEEE1C1	0.01	92.59	4741.20	0.00	4815.00	0.00	0.00	9556.20	
					185	11,266	0	11,441	0	0	22,707	11353.73
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	0.00	700.00	
					0	0	0	0	832	0	832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELEER18	0.55	6.00	165.56	0.00	363.80	0.00	0.00	529.36	
					0	13	0	28	0	0	41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEE1C1	0.40	2.50	128.01	0.00	29.48	0.00	0.00	157.49	
					3	152	0	35	0	0	187	187.12

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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09.02. Gate S9		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF EL <16622 5230 >	HID fxttr, floodlight, 250W high duty press sodium lamp, encl, heavy	13.00	EA	EELER19	0.69	3.63	186.79	0.00	0.00	391.89	0.00	578.68	8,938
						47	2,885	0	0	6,053	0	8,938	687.53
USR EL <16611 4100 >	Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00	0.00	181.90	0.00	310.41	368.80
						18	1,069	0	0	1,513	0	2,582	368.80
USR EL <16617 0001 >	Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44	85.16	0.00	214.00	0.00	798.59	9,488
						100	5,934	1,012	0	2,543	0	9,488	948.81
MIL EL <16617 1040 >	Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89	62.38	0.00	903.35	0.00	1331.62	1582.10
						73	4,347	741	0	10,733	0	15,821	1582.10
USR EL <16617 0002 >	Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89	17.03	0.00	460.10	0.00	577.02	686
						2	119	20	0	547	0	686	686.56
MIL EL <16338 4400 >	Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEEEC1	0.21	4.85	248.57	0.00	0.00	514.97	0.00	763.54	907
						5	295	0	0	612	0	907	907.16
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEEEC1	0.50	2.00	102.41	0.00	0.00	133.75	0.00	236.16	280.58
						26	1,582	0	0	2,066	0	3,648	280.58
MIL EL <16325 4320 >	Panelboard assem, 12-20A brkr, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEEEC1	0.12	8.47	433.94	0.00	0.00	332.77	0.00	766.71	911
						8	516	0	0	395	0	911	910.93
USR EL <16323 0001 >	Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEEEC1	0.42	2.40	122.79	0.00	0.00	802.50	0.00	925.29	1,099
						2	146	0	0	953	0	1,099	1099.34
USR EL <16333 1401 >	Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	0.00	128.40	0.00	196.70	234
						1	81	0	0	153	0	234	233.70
USR EL <03000 0001 >	Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	0.00	107.00	0.00	224.82	267
						8	128	12	0	127	0	267	267.11
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	0.00	8.93	15,179
						154	7,878	7,301	0	0	0	15,179	10.61
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEEEC1	0.14	7.25	371.05	0.00	0.00	69.02	0.00	440.07	112
						2	95	0	0	18	0	112	522.84
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEEEC1	0.13	8.00	409.64	0.00	0.00	105.93	0.00	515.57	1,982
						26	1,574	0	0	407	0	1,982	612.55

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATOLA

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.02. Gate S9		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6		1.55	MLF	EELEEE1C1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	
						19	1,164		541	0	1,705	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0		0.08	MLF	EELEEE1C1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	
						2	111		94	0	205	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, and fault intrpt, 20 amp, duplex		1.00	EA	EELEEE1C1	3.38	0.30	15.17	0.00	32.53	0.00	47.70	
						0	18		39	0	57	56.67
USR EL <16153 0014 > Cable Termination #12		50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	
						4	244		16	0	260	5.20
USR EL <16153 0013 > Cable Termination #10		90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	
						8	495		57	0	552	6.13
USR EL <16153 0012 > Cable Termination #6		8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	
						1	49		9	0	58	7.19
USR EL <16153 0010 > Cable Termination #1/0		12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	
						2	110		46	0	156	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov		1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	
						8	494	77	381	0	952	952.34
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2		2.00	EA	EELEEE1C1	0.41	2.42	123.98	0.00	269.11	0.00	393.09	
						5	295		639	0	934	467.03
MIL EL <16338 5510 > Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R		1.00	EA	EELEEE1C1	0.31	3.20	163.86	0.00	354.06	0.00	517.92	
						3	195		421	0	615	615.34
USR EL <16232 2483 > Wiring device, receptacle, and fault intrpt, 20 amp, duplex WP		1.00	EA	EELEEE1C1	2.89	0.35	17.70	0.00	53.50	0.00	71.20	
						0	21		64	0	85	84.59
USR EL <16153 0011 > Cable Termination #4		6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	
						1	44		8	0	52	8.66
USR EL <16153 0012 > Cable Termination #6		14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	
						1	86		15	0	101	7.19
USR EL <16153 0013 > Cable Termination #8		22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	
						2	121		21	0	142	6.45
USR EL <16153 0014 > Cable Termination #12		478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	
						38	2,335		152	0	2,487	5.20
USR EL <16153 0016 > Cable Termination #16		54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	
						4	264		10	0	274	5.08

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					16	989	0	433	0	1,422	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					102	6,233	0	3,089	0	9,321	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					9	548	0	373	0	921	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					99	5,990	0	2,156	0	8,146	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					56	3,407	0	1,794	0	5,201	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					5	292	0	128	0	420	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					24	1,433	0	755	0	2,188	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					28	1,685	0	606	0	2,291	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					2	122	0	83	0	205	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					0	26	0	13	0	39	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEELEC1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	1.80
					2	117	0	32	0	150	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					46	2,789	0	1,004	0	3,793	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	358.33
					0	26	0	4	0	29	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	93.82
					13	770	0	567	0	1,338	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	515.57
					45	2,713	0	702	0	3,414	612.55
MIL EL <16326 0100 > Panelboard&ld ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	51.66
					2	97	0	25	0	123	61.38

LABOR ID: C43RES

EQUIP ID: C43RES

Crew ID: NAT01A

UPB ID: UP01EA

09.02. Gate S9	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16326 0310 > Panelboard skid ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEELEC1	1.00	1.00	51.21	0.00	0.00	20.33	0.00	71.54	84.99
MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for distribution panel L	1.00	EA	EELEEELEC1	0.08	12.32	630.60	0.00	0.00	428.54	0.00	1059.14	1258.36
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEELEC1	0.24	4.20	215.15	0.00	0.00	293.18	0.00	508.33	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	0.00	69.02	0.00	440.07	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	0.00	360.59	0.00	526.15	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	0.00	19.57	0.00	85.88	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEELEC1	0.63	1.60	81.93	0.00	0.00	69.67	0.00	151.60	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEELEC1	0.46	2.16	110.59	0.00	0.00	69.98	0.00	180.57	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEEELEC1	0.53	1.90	97.53	0.00	0.00	44.60	0.00	142.13	168.87
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	0.00	7490.00	0.00	18763.03	22292.35
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEELEC1	22.50	0.04	2.28	0.00	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	0.00	160.50	0.00	314.78	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	0.00	19.57	0.00	85.88	102.04

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NOTE: Use for 2/0 cadweld

USR EL <16000 0001 > Concrete antennae pole  
NOTE: Includes foundation,  
ground rod, ground cable,  
conduit, etc.

MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp,  
w/ fuse, 600 volt, 3 pole NEMA  
3R

MIL EL <16313 9650 > Motor starter & cont, NEMA 1,  
size 1, comb, rev, w/disc switch  
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x  
12"D, sheet met, dbl dr, NEMA  
3R

NOTE: Use for RTU enclosure

USR EL <16333 1401 > Photo-cell

USR EL <16711 0011 > Meter Connection by Utility

RSM EL <16324 0100 > Meter centers & sockets, 4 term,  
100 A, socket, 1 position

MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp,  
w/ fuse, 600 volt, 3 pole NEMA 1

USR EL <13810 5471 > Surge Suppressor

USR EL <13810 0001 > Limit and Rotary Switches

USR EL <13810 0002 > Push Button Stations

USR EL <16153 0016 > Cable Termination #10

USR EL <16153 0014 > Cable Termination #14

AF EL <16232 2480 > Wiring device, receptacle, gnd  
fault intrpt, 15 amp, duplex

MIL EL <16234 0160 > Wiring device, concealed, switch,  
120 volt, 20 amp, SFSI

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	5298.43
					76	2,481	0	3,814	0	6,295	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEELEC1	0.31	3.19	163.59	0.00	354.06	0.00	517.66	517.66
					13	777	0	1,683	0	2,460	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	1299.60
					17	1,018	0	2,070	0	3,088	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R	1.00	EA	EELEELEC1	0.25	4.00	204.82	0.00	363.73	0.00	568.55	568.55
					4	243	0	432	0	675	675.49
NOTE: Use for RTU enclosure											
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	196.70
					1	81	0	153	0	234	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	700.00
					0	0	0	0	832	832	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	157.49
					3	152	0	35	0	187	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEELEC1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	763.54
					10	591	0	1,224	0	1,814	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	377.55
					5	321	0	127	0	449	448.57
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHM20	0.59	4.23	111.98	0.00	26.75	0.00	138.73	138.73
					25	798	0	191	0	989	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHM20	0.63	4.00	105.93	0.00	53.50	0.00	159.43	159.43
					16	503	0	254	0	758	189.42
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	5.16
					12	704	0	81	0	785	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	4.33
					1	59	0	3	0	62	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEELEC1	3.38	0.30	15.17	0.00	30.82	0.00	45.99	45.99
					1	72	0	146	0	219	54.64
MIL EL <16234 0160 > Wiring device, concealed, switch, 120 volt, 20 amp, SFSI	2.00	EA	EELEELEC1	1.38	0.73	37.24	0.00	9.68	0.00	46.92	46.92
					1	88	0	23	0	111	55.75

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER		
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered		2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	
						4	248	42	1,182	0	1,472	736.09
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered		2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	
						14	802	137	882	0	1,820	910.17
USR EL <16617 3300 > Light Pole Foundation		4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	
						32	1,899	324	1,170	0	3,392	848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		7.00	EA	EELEEE1C1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	
						14	852	0	1,112	0	1,964	280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0		0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	
						8	258	0	1,125	0	1,383	1656.64
USR EL <16865 0125 > Level Gage		1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	
						16	985	0	636	0	1,621	1620.70
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)		4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	
						6	320	0	310	0	630	157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B		2.00	EA	EELEEE1C2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	
						6	336	0	1,081	0	1,416	708.21
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C		2.00	EA	EELEEE1C2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	
						6	336	0	1,081	0	1,416	708.21
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)		4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	
						9	568	0	1,531	0	2,099	524.68
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)		8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80	
						13	724	0	1,441	0	2,165	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher		3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	
						358	18,289	16,951	0	0	35,240	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4		0.03	MLF	EELEEE1C1	0.07	15.15	775.83	0.00	448.33	0.00	1224.16	
						0	28	0	16	0	44	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8		0.80	MLF	EELEEE1C1	0.10	10.00	512.05	0.00	182.44	0.00	694.48	
						8	487	0	173	0	660	825.12

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UF01EA



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09.02. Gate S9	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-IHNN, #16	0.16	MLF	EELEEE1	0.17	5.75	294.28	0.00	42.80	0.00	337.08	65
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	389
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	25,084
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEE1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	4,066
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEE1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1,099
TOTAL Electrical	1.00	EA			2,562	146,775	27,000	125,345	1,663	300,783	300,783.45
09.02.15. Equipment Building											
USR AA <03450 0001 > Precast Concrete Building Note: Note: Material price from Concrete Modular Systems 727-945-1756 ATTN: Frederick Kennedy	1.00	EA	SIWSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	50586.44	50,586
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	1.48	100
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	218
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	631
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	90
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	46
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	57
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23	61
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	90

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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09.02. Gate S9	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
under precast building											
TOTAL Equipment Building	1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
09.02.95. Controls											
USR MC <15743 0001 > Dewatering Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		0	1,073	0	1,324
USR MC <15743 0001 > Level Control Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		0	1,073	0	1,324
USR MC <15743 0001 > Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						501		2,146	0	2,647	1323.70
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		0	1,073	0	1,324
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
						125		0	671	0	796
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
						376		0	2,012	0	2,388
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	14500	LF	CODB854	90.63	0.01	0.47	0.13	0.00	0.00	0.60	0.60
					160	8,552	2,372	0	0	10,924	0.75
USR MC <15743 0001 > Control Conduit & Cable	14500	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	7.28
					1,576	54,527	0	77,792	0	132,319	9.13
TOTAL Controls	1.00	EA			1,736	64,834	2,372	85,840	0	153,045	153045.46
TOTAL Gate S9	1.00	EA			6,136	272,788	42,061	389,500	1,663	706,012	706012.05

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

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09.03. Gate S14	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.03. Gate S14											
09.03. Concrete											
09.03.03.01. Slab On Grade											
09.03.03.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	80.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	110.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	7.34	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	80.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
TOTAL Base Slab	1.00	EA		135	3,162	29	17,261	0	0	20,451	20451.26
TOTAL Slab On Grade	1.00	EA		135	3,162	29	17,261	0	0	20,451	20451.26
09.03.03.03. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	10.25	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	92.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	92.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	3600.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
TOTAL Walls	1.00	EA		560	11,283	571	24,414	0	0	36,269	36268.56
09.03.03.07. Elevated Slabs											
09.03.03.07.01. Elevated Slab											
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywood 15'-20' high 4 use	620.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

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09.03. Gate S14											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	20.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
					7	122	76	0	0	198	198
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	20.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	2,525	0	2,525	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					28	726	0	1,926	0	2,652	1326.20
TOTAL Elevated Slab	1.00	EA			95	1,984	76	5,161	0	7,221	7221.20
TOTAL Elevated Slabs	1.00	EA			95	1,984	76	5,161	0	7,221	7221.20
09.03.03.08. Beams											
09.03.03.08.01. Needle Beams											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.24	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					3	67	0	231	0	298	298
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	253	0	253	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	2.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38
					2	34	27	0	0	61	61
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	110.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
					14	265	0	112	0	376	376
TOTAL Needle Beams	1.00	EA			19	365	27	595	0	988	987.68
TOTAL Beams	1.00	EA			19	365	27	595	0	988	987.68
TOTAL Concrete	1.00	EA			809	16,794	703	47,432	0	64,929	64928.69
09.03.04. Erosion Control System											
MIL AA <02244 1510 > Base course,crushed stone, 3/4" max size, compacted, 3"D, large areas	315.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					29	1,067	1,267	8,177	0	10,511	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	59.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					1	24	9	81	0	114	114
TOTAL Erosion Control System	1.00	JB			30	1,091	1,276	8,258	0	10,625	10625.13

LABOR ID: C43RES

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CREW ID: NAT01A UPB ID: UP01EA

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09.03. Gate S14	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.03.05. Gates											
USR AA <05150 0001 > Slide Gate 10' x 6' SSI	1.00	EA	SIWSE21	0.02	459.77	27154.81	5826.40	28890.00	0.00	61871.21	61871.21
					460	27,155	5,826	28,890	0	61,871	61871.21
TOTAL Gates	1.00	EA			460	27,155	5,826	28,890	0	61,871	61871.21
09.03.06. Stop Logs											
USR AA <05548 0611 > Stop Log	280.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	114.58
					125	7,820	295	23,968	0	32,083	114.58
TOTAL Stop Logs	1.00	EA			125	7,820	295	23,968	0	32,083	32083.32
09.03.07. Rip Rap											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	197.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
					18	667	792	5,114	0	6,574	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	789.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
					16	321	116	1,089	0	1,526	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	394.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37
					202	4,150	2,417	9,734	0	16,301	41.37
TOTAL Rip Rap	1.00	EA			236	5,138	3,326	15,937	0	24,401	24401.03
09.03.11. Electrical											
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELEELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	4029.48
					37	2,245	0	2,543	0	4,787	4787.43
USR EL <16119 0002 > Actuator Starter & Remote Cntrl's	1.00	EA	EELEELEC1	0.01	90.91	4655.00	0.00	4815.00	0.00	9470.00	9470.00
					91	5,531	0	5,721	0	11,251	11251.31
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	700.00
					0	0	0	0	832	832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	529.36
					0	13	0	28	0	41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	157.49
					3	152	0	35	0	187	187.12
AF EL <16622 5230 > HID fxttr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00	391.89	0.00	578.68	578.68
					47	2,885	0	6,053	0	8,938	687.53

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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09.03. Gate S14										TOTAL COST UNIT COST		
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	
USR EL <16611 4100 > Compact Fluorescent		7.00	EA	EELER19	1.00	2.50	128.51	0.00		181.90	0.00	310.41
						18	1,069	0		1,513	0	2,582
USR EL <16617 0001 > Light pole foundation		10.00	EA	EELER15	0.60	10.00	499.44	85.16		214.00	0.00	798.59
43' tall, round, 3" OD, octagonal, conc						100	5,934	1,012		2,543	0	9,488
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered		10.00	EA	EELER15	0.82	7.33	365.89	62.38		903.35	0.00	1331.62
						73	4,347	741		10,733	0	15,821
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole		1.00	EA	EELER15	3.00	2.00	99.89	17.03		460.10	0.00	577.02
						2	119	20		547	0	686
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1		1.00	EA	EELEEE1C1	0.21	4.85	248.57	0.00		514.97	0.00	763.54
						5	295	0		612	0	907
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		13.00	EA	EELEEE1C1	0.50	2.00	102.41	0.00		133.75	0.00	236.16
						26	1,582	0		2,066	0	3,648
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V		1.00	EA	EELEEE1C1	0.12	8.47	433.94	0.00		332.77	0.00	766.71
						8	516	0		395	0	911
NOTE: Use for Panel L												
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller		1.00	EA	EELEEE1C1	0.42	2.40	122.79	0.00		802.50	0.00	925.29
						2	146	0		953	0	1,099
USR EL <16333 1401 > Photo-cell		1.00	EA	EELER19	1.88	1.33	68.30	0.00		128.40	0.00	196.70
						1	81	0		153	0	234
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller		1.00	EA	ULABC6	0.75	8.00	107.95	9.87		107.00	0.00	224.82
						8	128	12		127	0	267
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher		1430.00	LF	COETR23	33.25	0.11	4.64	4.30		0.00	0.00	8.93
						154	7,878	7,301		0	0	15,179
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12		0.22	MLF	EELEEE1C1	0.14	7.25	371.05	0.00		69.02	0.00	440.07
						2	95	0		18	0	112
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10		3.24	MLF	EELEEE1C1	0.13	8.00	409.64	0.00		105.93	0.00	515.57
						26	1,574	0		407	0	1,982
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6		1.55	MLF	EELEEE1C1	0.08	12.35	632.16	0.00		293.72	0.00	925.88
						19	1,164	0		541	0	1,705

LABOR ID: C43RES EQUIP ID: C43RES

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CREW ID: NAT01A

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09.03. Gate S14		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1600 > Wire, 600 volt, type THWN-IHNN, copper, stranded, 1/0	0.08	MIF	EELEEE1C1	0.04	24.39	1248.90	0.00	1049.67	0.00	0.00	2298.57	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEE1C1	3.38	0.30	15.17	0.00	32.53	0.00	0.00	47.70	56.67
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	0.00	4.38	5.20
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	0.00	5.16	6.13
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	0.00	6.05	7.19
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	0.00	10.92	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	0.00	801.57	952.34
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2	2.00	EA	EELEEE1C1	0.41	2.42	123.98	0.00	269.11	0.00	0.00	393.09	467.03
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEE1C1	0.31	3.20	163.86	0.00	354.06	0.00	0.00	517.92	615.34
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEE1C1	2.89	0.35	17.70	0.00	53.50	0.00	0.00	71.20	84.59
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	0.00	7.29	8.66
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	0.00	6.05	7.19
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	0.00	5.43	6.45
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	0.00	4.38	5.20
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	0.00	4.27	5.08
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEEE1C1	15.63	0.06	3.28	0.00	1.43	0.00	0.00	4.71	5.60

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.03. Gate S14		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16712 1030 >	Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16712 1050 >	Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16018 0520 >	Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	5.60
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
MIL EL <16018 0580 >	Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	10.23
MIL EL <16018 0540 >	Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	7.83
MIL EL <16712 1020 >	Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEELEC1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	2.14
MIL EL <16712 1030 >	Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.55
RSM EL <16119 0920 >	Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	425.73
CIV EL <16153 0320 >	Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	111.46
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	612.55
MIL EL <16326 0100 >	Panelboard&id ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	61.38
MIL EL <16326 0310 >	Panelboard&id ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.00	1.00	51.21	0.00	20.33	0.00	71.54	84.99

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MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for distribution panel L	1.00	EA	EELEELEC1	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1258.36
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEELEC1	0.24	4.20	215.15	0.00	293.18	0.00	508.33	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEELEC1	0.14	7.25	371.05	0.00	69.02	0.00	440.07	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEELEC1	0.63	1.60	81.93	0.00	69.67	0.00	151.60	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEELEC1	0.46	2.16	110.59	0.00	69.98	0.00	180.57	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEELEC1	0.53	1.90	97.53	0.00	44.60	0.00	142.13	168.87
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	22292.35
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld NOTE: Use for 2/0 cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102.04

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69 76	2088.43 2,481	0.00	3210.00 0	0.00 0	5298.43 6,295	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELER18	0.31	3.19 13	163.59 777	0.00	354.06 0	0.00 0	517.66 2,460	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33 17	428.38 1,018	0.00	871.23 0	0.00 0	1299.60 3,088	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R NOTE: Use for RTU enclosure	1.00	EA	EELER19	0.25	4.00 4	204.82 243	0.00	363.73 0	0.00 0	568.55 675	675.49
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33 1	68.30 81	0.00	128.40 0	0.00 0	196.70 234	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00 0	0.00 0	0.00	0.00 0	700.00 832	700.00 832	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELER19	0.40	2.50 3	128.01 152	0.00	29.48 0	0.00 0	157.49 187	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELER19	0.21	4.85 10	248.57 591	0.00	514.97 0	0.00 0	763.54 1,814	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26 5	270.55 321	0.00	107.00 0	0.00 0	377.55 449	448.57
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHMQ20	0.59	4.23 25	111.98 798	0.00	26.75 0	0.00 0	138.73 989	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHMQ20	0.63	4.00 16	105.93 503	0.00	53.50 0	0.00 0	159.43 758	189.42
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09 12	4.63 704	0.00	0.54 0	0.00 0	5.16 785	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08 1	4.11 59	0.00	0.21 0	0.00 0	4.33 62	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELER19	3.38	0.30 1	15.17 72	0.00	30.82 0	0.00 0	45.99 219	54.64
MIL EL <16234 0160 > Wiring device, concealed switch, 120 volt, 20 amp, SPST	2.00	EA	EELER19	1.38	0.73 1	37.24 88	0.00	9.68 0	0.00 0	46.92 111	55.75

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09.03. Gate S14	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55		
					4	248	42	1,182	0	1,472		736.09
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07		
					14	802	137	882	0	1,820		910.17
USR EL <16617 3300 > Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77		
					32	1,899	324	1,170	0	3,392		848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELER15	0.50	2.00	102.41	0.00	133.75	0.00	236.16		
					14	852	0	1,112	0	1,964		280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36		
					8	258	0	1,125	0	1,383		1656.64
USR EL <16865 0125 > Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11		
					16	985	0	636	0	1,621		1620.70
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55		
					6	320	0	310	0	630		157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1)	2.00	EA	EELER22	0.72	2.76	141.33	0.00	454.75	0.00	596.08		
					6	336	0	1,081	0	1,416		708.21
NOTE: Use for fixture type B												
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1)	2.00	EA	EELER22	0.72	2.76	141.33	0.00	454.75	0.00	596.08		
					6	336	0	1,081	0	1,416		708.21
NOTE: Use for fixture type C												
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62		
					9	568	0	1,531	0	2,099		524.68
NOTE: Use for type D (250w Metal Halide EH9)												
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80		
					13	724	0	1,441	0	2,165		270.65
NOTE: Use for type E (E12)												
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93		
					358	18,289	16,951	0	0	35,240		10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELER22	0.07	15.15	775.83	0.00	448.33	0.00	1224.16		
					0	28	0	16	0	44		1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELER22	0.10	10.00	512.05	0.00	182.44	0.00	694.48		
					8	487	0	173	0	660		825.12

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	ELEELEEC1	0.17	5.75	294.28	0.00	42.80	0.00	337.08	337.08
					1	57		8	0	65	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	10.92
					5	275		114	0	389	12.97
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	21112.59
					40	2,453	384	22,247	0	25,084	25083.87
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	ELEELEEC1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	3422.39
					6	374		3,692	0	4,066	4066.14
USR EL <16323 0001 > Terminal Box	1.00	EA	ELEELEEC1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	925.29
					2	146		953	0	1,099	1099.34
TOTAL Electrical	1.00	EA			2,468	141,039	27,000	119,624	1,663	289,327	289327.30

09.03.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARCI	75.00	0.05	0.96	0.00	0.51	0.00	1.48	1.48
					4	65		35	0	100	1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	1090.80
					3	73		146	0	218	1090.80
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0		631	0	631	126.26
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	17.95
					3	50	40	0	0	90	17.95
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					2	46		0	0	46	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					3	57		0	0	57	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEFI1	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.23
					3	61		0	0	61	0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	18.10
NOTE: Use for granular fill					0	5	4	81	0	90	18.10

LABOR ID: C43RES

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under precast building											
TOTAL Equipment Building	1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
09.03.95. Controls											
USR MC <15743 0001 > Level Control Gate IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Upstream Downstream Level IO Points	2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						501		2,146	0	2,647	1323.70
USR MC <15743 0001 > Downstream Sampler IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Emergency Generator IO Points	1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
						251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
						125		671	0	796	795.97
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
						376		2,012	0	2,388	2387.92
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	29000	LF	CODBE54	90.63	319	17,103	0.13	0.00	0.00	0.60	0.60
						4,744		0	0	21,847	0.75
USR MC <15743 0001 > Control Conduit & Cable	29000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	7.28
						109,055		155,584	0	264,639	9.13
TOTAL Controls	1.00	EA			3,471	127,913	4,744	163,632	0	296,289	296288.54
TOTAL Gate S14	1.00	EA			7,748	334,487	44,891	450,364	1,663	831,405	831405.30

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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09.04. Gate S15	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
09.04. Gate S15											
09.04.03. Concrete											
09.04.03.01. Slab On Grade											
09.04.03.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	130.00	CY	ULABC6	20.63	38	3.93	0.36	0.00	0.00	4.28	4.28
					510	510	47	0	0	557	557
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	150.00	SF	ACARC1	43.75	14	1.65	0.00	0.83	0.00	2.49	2.49
					248	248	0	125	0	373	373
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	11.76	TON	SIWRRODM4	0.29	163	363.20	0.00	963.00	0.00	1326.20	1326.20
					4,271	4,271	0	11,325	0	15,596	15,596
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	130.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	16,414	0	16,414	16,414
TOTAL Base Slab	1.00	EA			215	5,029	47	27,864	0	32,940	32939.69
-----											
TOTAL Slab On Grade	1.00	EA			215	5,029	47	27,864	0	32,940	32939.69
09.04.03.03. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	11.14	TON	SIWRRODM4	0.38	119	278.93	0.00	963.00	0.00	1241.93	1241.93
					3,107	3,107	0	10,728	0	13,835	13,835
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	100.00	CY	N/A	0.00	0	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	12,626	0	12,626	12,626
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	100.00	CY	CLABC20	13.75	58	10.01	6.21	0.00	0.00	16.22	16.22
					1,001	1,001	621	0	0	1,622	1,622
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	4440.00	SF	ACARC2	54.38	490	2.08	0.00	0.81	0.00	2.90	2.90
					9,254	9,254	0	3,611	0	12,864	12,864
TOTAL Walls	1.00	EA			667	13,362	621	26,964	0	40,948	40947.54
09.04.03.07. Elevated Slabs											
09.04.03.07.01. Elevated Slab											
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	1320.00	SF	ACARC2	61.88	128	1.83	0.00	1.14	0.00	2.98	2.98
					2,418	2,418	0	1,511	0	3,929	3,929

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA

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09.04. Gate S15											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	45.00	CY	CLABC20	22.50	0.36 16	6.12 275	3.80 171	0.00 0	0.00 0	9.91 446	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	45.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 5,682	0.00 0	126.26 5,682	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	4.51	TON	SIWRRODM4	0.29	13.89 63	363.20 1,638	0.00 0	963.00 4,343	0.00 0	1326.20 5,981	1326.20
TOTAL Elevated Slab	1.00	EA			207	4,331	171	11,536	0	16,038	16037.72
TOTAL Elevated Slabs	1.00	EA			207	4,331	171	11,536	0	16,038	16037.72
09.04.03.08. Beams											
09.04.03.08.01. Needle Beams											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.50	TON	SIWRRODM4	0.38	10.67 5	278.93 139	0.00 0	963.00 482	0.00 0	1241.93 621	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	4.00	CY	N/A	0.00	0.00 0	0.00 0	0.00 0	126.26 505	0.00 0	126.26 505	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	4.00	CY	ULABC7	8.13	0.98 4	16.94 68	13.44 54	0.00 0	0.00 0	30.38 122	30.38
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	215.00	SF	ACARC2	47.13	0.13 27	2.40 517	0.00 0	1.02 219	0.00 0	3.42 736	3.42
TOTAL Needle Beams	1.00	EA			37	724	54	1,205	0	1,983	1983.09
TOTAL Beams	1.00	EA			37	724	54	1,205	0	1,983	1983.09
TOTAL Concrete	1.00	EA			1,125	23,446	892	67,569	0	91,908	91908.04
09.04.04. Erosion Control System											
MIL AA <02244 1510 > Base course,crushed stone, 3/4" max size, compacted, 3"D, large areas	737.00	CY	COFGB36C	54.38	0.09 68	3.39 2,497	4.02 2,965	25.96 19,131	0.00 0	33.37 24,592	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	134.00	SY	ULABA2	150.00	0.02 3	0.41 54	0.15 20	1.38 185	0.00 0	1.93 259	1.93
TOTAL Erosion Control System	1.00	JB			70	2,551	2,984	19,316	0	24,852	24851.61

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UPO1EA

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09.04. Gate S15	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.04.05. Gates											
USR AA <05150 0001 > Slide Gate 10' x 8' SST	1.00	EA	SIWSE21	0.01	615.38	36345.67	7798.42	38306.00	0.00	82450.08	
					615	36,346	7,798	38,306	0	82,450	82450.08
USR AA <05150 0001 > Weir Gate 10' x 4' SST	1.00	EA	SIWSE21	0.03	233.92	13815.61	2964.31	21400.00	0.00	38179.92	
					234	13,816	2,964	21,400	0	38,180	38179.92
TOTAL Gates	1.00	EA			849	50,161	10,763	59,706	0	120,630	120630.00
09.04.06. Stop Logs											
USR AA <05548 0611 > Stop Log	516.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	
					231	14,411	545	44,170	0	59,125	114.58
TOTAL Stop Logs	1.00	EA			231	14,411	545	44,170	0	59,125	59124.98
09.04.07. Rip Rap											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	476.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	
					44	1,612	1,915	12,356	0	15,883	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	1904.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	
					38	774	281	2,628	0	3,683	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	952.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	
					488	10,027	5,841	23,520	0	39,388	41.37
TOTAL Rip Rap	1.00	EA			570	12,413	8,036	38,505	0	58,954	58954.17
09.04.11. Electrical											
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EELEELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	
					37	2,245	0	2,543	0	4,787	4787.43
USR EL <16119 0002 > Actuator Starter & Remote Contrls	2.00	EA	EELEELEC1	0.01	92.59	4741.20	0.00	4815.00	0.00	9556.20	
					185	11,266	0	11,441	0	22,707	11353.73
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	
					0	0	0	0	832	832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	
					0	13	0	28	0	41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, i position	1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	
					3	152	0	35	0	187	187.12

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA



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09.04. Gate S15		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF EL <16622 5230 >	HID ftr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63 47	186.79 2,885	0.00	391.89 6,053	0.00	578.68 8,938	687.53
USR EL <16611 4100 >	Compact Fluorescent	7.00	EA	EELER19	1.00	2.50 18	128.51 1,069	0.00	181.90 1,513	0.00	310.41 2,582	368.80
USR EL <16617 0001 >	Light pole foundation 43' tall, round, 3" OD, octagonal, conc	10.00	EA	EELER15	0.60	10.00 100	499.44 5,934	85.16 1,012	214.00 2,343	0.00	798.59 9,488	948.81
MIL EL <16617 1040 >	Lighting, poles, one 6' arm, 30' T. roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33 73	365.89 4,347	62.38 741	903.35 10,733	0.00	1331.62 15,821	1582.10
USR EL <16617 0002 >	Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00 2	99.89 119	17.03 20	460.10 547	0.00	577.02 686	685.56
MIL EL <16338 4400 >	Safety switch, nvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEE1C1	0.21	4.85 5	248.57 295	0.00	514.97 612	0.00	763.54 907	907.16
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEE1C1	0.50	2.00 26	102.41 1,582	0.00	133.75 2,066	0.00	236.16 3,648	280.58
MIL EL <16325 4320 >	Panelboard assem, 12-20A brkr, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEE1C1	0.12	8.47 8	433.94 516	0.00	332.77 395	0.00	766.71 911	910.93
USR EL <16323 0001 >	Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEE1C1	0.42	2.40 2	122.79 146	0.00	802.50 953	0.00	925.29 1,099	1099.34
USR EL <16333 1401 >	Photo-cell	1.00	EA	EELER19	1.88	1.33 1	68.30 81	0.00	128.40 153	0.00	196.70 234	233.70
USR EL <03000 0001 >	Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00 8	107.95 128	9.87 12	107.00 127	0.00	224.82 267	267.11
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COBTR23	33.25	0.11 154	4.64 7,878	4.30 7,301	0.00	0.00	8.93 15,179	10.61
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEE1C1	0.14	7.25 2	371.05 95	0.00	69.02 18	0.00	440.07 112	522.84
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEE1C1	0.13	8.00 26	409.64 1,574	0.00	105.93 407	0.00	515.57 1,982	612.55

LABOR ID: C43RES

EQUIP ID: C43RES

Crew ID: NAT01A

UFB ID: UF01EA

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09.04. Gate S15

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEE1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	
					19	1,164			541		1,705	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEE1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	
					2	111			94		205	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEE1	3.38	0.30	15.17	0.00	0.00	32.53	0.00	47.70	
					0	18			39		57	56.67
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.27	0.00	4.38	
					4	244			16		260	5.20
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.54	0.00	5.16	
					8	495			57		552	6.13
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.00	0.91	0.00	6.05	
					1	49			9		58	7.19
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	0.00	3.21	0.00	10.92	
					2	110			46		156	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	77	321.00	0.00	801.57	
					8	494			381		952	952.34
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for IC1 & IC2	2.00	EA	EELEEE1	0.41	2.42	123.98	0.00	0.00	269.11	0.00	393.09	
					5	295			639		934	467.03
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEE1	0.31	3.20	163.86	0.00	0.00	354.06	0.00	517.92	
					3	195			421		615	615.34
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEE1	2.89	0.35	17.70	0.00	0.00	53.50	0.00	71.20	
					0	21			64		85	84.59
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	0.00	1.12	0.00	7.29	
					1	44			8		52	8.66
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.00	0.91	0.00	6.05	
					1	86			15		101	7.19
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.80	0.00	5.43	
					2	121			21		142	6.45
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.27	0.00	4.38	
					38	2,335			152		2,487	5.20
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.16	0.00	4.27	
					4	264			10		274	5.08

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09.04. Gate S15	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEEE1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					16	989	0	433	0	1,422	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEEE1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					102	6,233	0	3,089	0	9,321	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEEE1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					9	548	0	373	0	921	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEEE1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					99	5,990	0	2,156	0	8,146	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEEE1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					56	3,407	0	1,794	0	5,201	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEEE1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					5	292	0	128	0	420	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEEE1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					24	1,433	0	755	0	2,188	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEEE1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					28	1,685	0	606	0	2,291	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEEE1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					2	122	0	83	0	205	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEEE1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					0	26	0	13	0	39	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEEE1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	1.80
					2	117	0	32	0	150	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEEE1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					46	2,789	0	1,004	0	3,793	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEEE1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	358.33
					0	26	0	4	0	29	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	93.82
					13	770	0	567	0	1,338	111.46
NOTE: Use for #14, 3 pr #20, and #10											
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEEE1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	515.57
					45	2,713	0	702	0	3,414	612.55
MIL EL <16326 0100 > Panelboard&id ctr ckt drkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEE1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	51.66
					2	97	0	25	0	123	61.38

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UF01EA

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09.04. Gate S15												
QUANTITY UOM CREW ID OUTPUT MANHRS LABOR EQUIP MNT MATERIAL OTHER TOTAL COST UNIT COST												
MIL EL <16326 0310 > Panelboard&ld ctr ckt brkr, 70 - 100A, bolt-on, 10K AIC, 1 P, 120V	2.00	EA	EELEEELECI	1.00	1.00	51.21	0.00	20.33	0.00	71.54	0.00	84.99
MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V	1.00	EA	EELEEELECI	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	0.00	1258.36
NOTE: Use for distribution panel L												
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEELECI	0.24	4.20	215.15	0.00	293.18	0.00	508.33	0.00	603.94
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEELECI	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	0.00	2730.93
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEELECI	0.08	12.35	632.16	0.00	293.72	0.00	925.88	0.00	1100.03
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEELECI	0.14	7.25	371.05	0.00	69.02	0.00	440.07	0.00	522.84
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	0.00	625.11
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	0.00	102.04
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEELECI	0.63	1.60	81.93	0.00	69.67	0.00	151.60	0.00	180.11
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEELECI	0.46	2.16	110.59	0.00	69.98	0.00	180.57	0.00	214.54
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D NOTE: Use for 12"x 18" x 6"	1.00	EA	EELEEELECI	0.53	1.90	97.53	0.00	44.60	0.00	142.13	0.00	168.87
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	0.00	22292.35
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEELECI	22.50	0.04	2.28	0.00	1.20	0.00	3.47	0.00	4.13
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	0.00	373.99
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	0.00	102.04

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NAT01A UPB ID: UP01EA

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

U.S. Army Corps of Engineers  
St Storage Reservoir - South  
30% Submittal  
09. Gated Culvert

LABOR ID: C43RES      EQUIP ID: C43RES      Currency in DOLLARS      CREW ID: NAT01A      UPB ID: UP01EA

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09.04. Gate S15										TOTAL COST		
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		QUANTITY	UOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	UNIT COST
-----										-----		
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered		2.00	EA	EELER15		2.88	2.09	104.23	17.77	497.55	0.00	619.55
							4	248	42	1,182	0	1,472
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered		2.00	EA	EELER15		0.89	6.76	337.46	57.54	371.08	0.00	766.07
							14	802	137	882	0	1,820
USR EL <16617 3300 > Light Pole Foundation		4.00	EA	EELER15		0.75	8.00	399.55	68.12	246.10	0.00	713.77
							32	1,899	324	1,170	0	3,392
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole		7.00	EA	EELELEC1		0.50	2.00	102.41	0.00	133.75	0.00	236.16
							14	852	0	1,112	0	1,964
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0		0.84	MLF	EELER18		0.35	9.43	260.16	0.00	1134.20	0.00	1394.36
							8	258	0	1,125	0	1,383
USR EL <16865 0125 > Level Gage		1.00	EA	EELER19		0.16	16.13	829.11	0.00	535.00	0.00	1364.11
							16	985	0	636	0	1,621
MIL EL <16611 3030 > Surface mtd fluor fxtr, 1'x4', two 40W, drop opai lens NOTE: Use for type A (PF8)		4.00	EA	EELER22		3.25	1.43	67.39	0.00	65.16	0.00	132.55
							6	320	0	310	0	630
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B		2.00	EA	EELELEC2		0.72	2.76	141.33	0.00	454.75	0.00	596.08
							6	336	0	1,081	0	1,416
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C		2.00	EA	EELELEC2		0.72	2.76	141.33	0.00	454.75	0.00	596.08
							6	336	0	1,081	0	1,416
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)		4.00	EA	EELER19		1.08	2.33	119.55	0.00	322.07	0.00	441.62
							9	588	0	1,531	0	2,099
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)		8.00	EA	EELER22		2.88	1.62	76.18	0.00	151.62	0.00	227.80
							13	724	0	1,441	0	2,165
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher		3320.00	LF	COETR23		33.25	0.11	4.64	4.30	0.00	0.00	8.93
							358	18,289	16,951	0	0	35,240
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4		0.03	MLF	EELELEC1		0.07	15.15	775.83	0.00	448.33	0.00	1224.16
							0	28	0	16	0	44
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8		0.80	MLF	EELELEC1		0.10	10.00	512.05	0.00	182.44	0.00	694.48
							8	487	0	173	0	660
Currency in DOLLARS										CREW ID: NAT01A		
LABOR ID: C43RES										EQUIP ID: C43RES		
										UPB ID: UF01EA		

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09.04. Gate S15

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELELECI	0.17	5.75	294.28	0.00	42.80	0.00	337.08	65
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	389
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	25,084
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELELECI	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	4,066
USR EL <16323 0001 > Terminal Box	1.00	EA	EELELECI	0.42	2.40	122.79	0.00	802.50	0.00	925.29	1,099
TOTAL Electrical	1.00	EA			2,562	146,775	27,000	125,345	1,663	300,783	300783.45

09.04.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARCI	75.00	0.05	0.96	0.00	0.51	0.00	1.48	100
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	218
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	631
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	90
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACNACEFI1	112.50	0.01	0.17	0.00	0.00	0.00	0.17	46
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACNACEFI1	90.63	0.01	0.22	0.00	0.00	0.00	0.22	57
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACNACEFI1	84.38	0.01	0.23	0.00	0.00	0.00	0.23	61
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	90

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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09.04. Gate S15		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
under precast building												
TOTAL Equipment Building		1.00	JB			148	7,537	1,720	42,623	0	51,880	51880.06
09.04.95. Controls												
USR MC <15743 0001 > Dewatering Gate IO Points		1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
							251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Level Control Gate IO Points		1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
							251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Upstream Downstream Level IO Points		2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
							501		2,146	0	2,647	1323.70
USR MC <15743 0001 > Emergency Generator IO Points		1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00	1056.00
							251		1,073	0	1,324	1323.70
USR MC <15743 0001 > Telemetry To/From Gated Structure		1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00	635.00
							125		671	0	796	795.97
USR MC <15743 0001 > 16 VHF Data Radios Structure		1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00	1905.00
							376		2,012	0	2,388	2387.92
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher		32000	LF	CODB854	90.63	352	18,873	0.13	0.00	0.00	0.60	0.60
							5,235	5,235	0	0	24,107	0.75
USR MC <15743 0001 > Control Conduit & Cable		32000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28	7.28
							120,336	0	171,679	0	292,015	9.13
TOTAL Controls		1.00	EA			3,830	140,964	5,235	179,727	0	325,925	325925.04
TOTAL Gate S15		1.00	EA			9,387	398,259	57,175	576,961	1,663	1,034,057	1034057

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA



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09.05. Gate S16	QUANTITY UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.05. Gate S16										
09.05.03. Concrete										
09.05.03.01. Slab On Grade										
09.05.03.01.01. Base Slab										
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	55.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28
					16	216	20	0	0	236
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	88.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49
					8	145	0	73	0	219
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	5.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20
					69	1,816	0	4,815	0	6,631
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	6,944	0	6,944
TOTAL Base Slab	1.00	EA		93	2,177	20	11,833	0	14,030	14029.66
TOTAL Slab On Grade	1.00	EA		93	2,177	20	11,833	0	14,030	14029.66
09.05.03.03. Walls										
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	5.35	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93
					57	1,492	0	5,152	0	6,644
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	48.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	6,060	0	6,060
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	48.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22
					28	480	298	0	0	779
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2070.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90
					228	4,314	0	1,683	0	5,998
TOTAL Walls	1.00	EA		313	6,287	298	12,896	0	19,481	19480.97
09.05.03.07. Elevated Slabs										
09.05.03.07.01. Elevated Slab										
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywood 15'-20' high 4 use	480.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98
					47	879	0	550	0	1,429

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

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09.05. Gate S16												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	15.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91	
M RSW AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	15.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26	
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	1.50	TON	SIWR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20	
TOTAL Elevated Slab	1.00	EA			73	1,516	57	3,888	0	5,461	5460.54	
TOTAL Elevated Slabs	1.00	EA			73	1,516	57	3,888	0	5,461	5460.54	
TOTAL Concrete	1.00	EA			480	9,980	375	28,617	0	38,971	38971.18	
09.05.04. Erosion Control System												
MIL AA <02244 1510 > Base course,crushed stone, 3/4" max size, compacted, 3"D, large areas	233.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37	
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	46.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93	
TOTAL Erosion Control System	1.00	JB			22	808	944	6,112	0	7,864	7863.78	
09.05.06. Stop Logs												
USR AA <05548 0611 > Stop Log	516.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	114.58	
TOTAL Stop Logs	1.00	EA			231	14,411	545	44,170	0	59,125	59124.98	
09.05.07. Rip Rap												
MIL AA <02244 1510 > Base course,crushed stone, 3/4" max size, compacted, 3"D, large areas	141.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37	
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	563.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93	
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	282.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37	
TOTAL Rip Rap	1.00	EA			169	3,677	2,380	11,404	0	17,461	17461.38	

LABOR ID: C43RES EQUIP ID: C43RES

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DETAILED ESTIMATE

PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.05. Gate S16		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
		1.00	EA		902	28.875	4,244	90,302	0	123,421	123421.33
TOTAL Gate S16											

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPE ID: UP01EA

Wed 31 May 2006  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.06. Gate S17	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
09.06.03. Concrete												
09.06.03.01. Slab On Grade												
09.06.03.01.01. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	70.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28		
					20	275	25	0	0	300		4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	95.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49		
					9	157	0	79	0	236		2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	6.33	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20		
					88	2,299	0	6,096	0	8,395		1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	70.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	8,838	0	8,838		126.26
TOTAL Base Slab	1.00	EA			117	2,731	25	15,013	0	17,769		17769.07
TOTAL Slab On Grade	1.00	EA			117	2,731	25	15,013	0	17,769		17769.07
09.06.03.03. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	8.91	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93		
					95	2,485	0	8,580	0	11,066		1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	80.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26		
					0	0	0	10,101	0	10,101		126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	80.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22		
					47	801	497	0	0	1,298		16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2820.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90		
					311	5,877	0	2,293	0	8,171		2.90
TOTAL Walls	1.00	EA			453	9,163	497	20,974	0	30,635		30634.65
09.06.03.07. Elevated Slabs												
09.06.03.07.01. Elevated Slab												
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	590.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98		
					57	1,081	0	675	0	1,756		2.98

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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09.06. Gate S17												
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	20.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	0.00	9.91	198
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	20.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	2,525
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	0.00	963.00	0.00	1326.20	2,652
TOTAL Elevated Slab	1.00	EA			92	1,929	76	5,127	0	0	7,132	7131.90
TOTAL Elevated Slabs	1.00	EA			92	1,929	76	5,127	0	0	7,132	7131.90
09.06.03.08. Beams												
09.06.03.08.01. Needle Beams												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.40	TON	SIWRRODM4	0.38	10.67	278.93	0.00	0.00	963.00	0.00	1241.93	497
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	3.00	CY	N/A	0.00	0.00	0.00	0.00	0.00	126.26	0.00	126.26	379
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	3.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	0.00	30.38	91
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	120.00	SF	ACARC2	47.13	0.13	2.40	0.00	0.00	1.02	0.00	3.42	411
TOTAL Needle Beams	1.00	EA			22	451	40	886	0	0	1,377	1377.24
TOTAL Beams	1.00	EA			22	451	40	886	0	0	1,377	1377.24
TOTAL Concrete	1.00	EA			684	14,274	638	42,000	0	0	56,913	56912.86
09.06.04. Erosion Control System												
MIL AA <02244 1510 > Base course,crushed stone, 3/4" max size, compacted, 3"D, large areas	737.00	CY	COFGB36C	54.38	0.09	3.39	4.02	0.00	25.96	0.00	33.37	24,592
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	134.00	SY	ULABA2	150.00	0.02	0.41	0.15	0.00	1.38	0.00	1.93	259
TOTAL Erosion Control System	1.00	JB			70	2,551	2,984	19,316	0	0	24,852	24851.61

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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09.06. Gate S17	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.06.05. Gates												
USR AA <05150 0001 > Slide Gate 6' x 6' SST	1.00	EA	SINSE21	0.03	229.89	13577.41	2913.20	18725.00	0.00	0.00	35215.61	
					230	13,577	2,913	18,725	0	0	35,216	35215.61
USR AA <05150 0001 > Weir Gate 6' x 3' SST	1.00	EA	SINSE21	0.07	112.20	6626.84	1421.87	9416.00	0.00	0.00	17464.71	
					112	6,627	1,422	9,416	0	0	17,465	17464.71
TOTAL Gates	1.00	EA			342	20,204	4,335	28,141	0	0	52,680	52680.32
09.06.06. Stop Logs												
USR AA <05548 0611 > Stop Log	258.00	SF	SINSE4	8.93	0.45	27.93	1.06	85.60	0.00	0.00	114.58	
					116	7,205	272	22,085	0	0	29,562	114.58
TOTAL Stop Logs	1.00	EA			116	7,205	272	22,085	0	0	29,562	29562.49
09.06.07. Rip Rap												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	119.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	0.00	33.37	
					11	403	479	3,089	0	0	3,971	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	475.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	0.00	1.93	
					10	193	70	656	0	0	919	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	237.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	0.00	41.37	
					122	2,496	1,454	5,855	0	0	9,806	41.37
TOTAL Rip Rap	1.00	EA			142	3,092	2,003	9,600	0	0	14,695	14695.23
09.06.11. Electrical												
Structure S17 shares the control building & generator with S18												
USR EL <16119 0002 > Actuator Starter & Remote Cntrl	2.00	EA	EELEEELEC1	0.01	92.59	4741.20	0.00	5885.00	0.00	0.00	10626.20	
					185	11,266	0	13,984	0	0	25,250	12624.99
USR EL <16820 3580 > Stilling well	1.00	EA	EELER19	0.01	219.30	11273.03	0.00	9630.00	0.00	0.00	20903.03	
					219	13,393	0	11,441	0	0	24,835	24834.89
TOTAL Electrical	1.00	EA			404	24,660	0	25,425	0	0	50,085	50084.87

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

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09.06. Gate S17									
09.06.15. Equipment Building									
QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST UNIT COST
USR AA <03450 0001 > Precast Concrete Building Note: Note: Material price from Concrete Modular Systems 727-945-1756 ATTN: Frederick Kennedy									
1.00	EA	SIWSE7A	0.06	130.08	7180.22	1676.22	41730.00	0.00	50586.44
				130	7,180	1,676	41,730	0	50,586 50586.44
MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use									
68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	1.48
				4	65	0	35	0	100 1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7									
0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80
				3	73	0	146	0	218 1090.80
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi									
5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
				0	0	0	631	0	631 126.26
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket									
5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95
				3	50	40	0	0	90 17.95
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish									
264.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17
				2	46	0	0	0	46 0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish									
264.00	SF	ACMACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22
				3	57	0	0	0	57 0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish									
264.00	SF	ACMACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23
				3	61	0	0	0	61 0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill under precast building									
5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10
				0	5	4	81	0	90 18.10
TOTAL Equipment Building									
1.00	JB			148	7,537	1,720	42,623	0	51,880 51880.06
09.06.95. Controls									
USR MC <15743 0001 > Dewatering Gate I0 Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
				0	251	0	1,073	0	1,324 1323.70
USR MC <15743 0001 > Level Control Gate I0 Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
				0	251	0	1,073	0	1,324 1323.70
USR MC <15743 0001 > Upstream Downstream Level I0 Points									
2.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
				0	501	0	2,146	0	2,647 1323.70
USR MC <15743 0001 > Emergency Generator I0 Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
				0	251	0	1,073	0	1,324 1323.70

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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09.06. Gate S17											
	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR MC <15743 0001 > Telemetry To/From Gated Structure	1.00	EA	N/A	0.00	0	100.00	0.00	535.00	0.00	635.00	796
						125	0	671	0	796	795.97
USR MC <15743 0001 > 16 VHF Data Radios Structure	1.00	EA	N/A	0.00	0	300.00	0.00	1605.00	0.00	1905.00	2,388
						376	0	2,012	0	2,388	2387.92
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher	34000	LF	CODBB54	90.63	0.01 374	0.47 20,052	0.13 5,562	0.00 0	0.00 0	0.60 25,614	0.75
USR MC <15743 0001 > Control Conduit & Cable	34000	LF	EELER18	30.35	0.11 3,696	3.00 127,857	0.00 0	4.28 182,409	0.00 0	7.28 310,266	9.13
TOTAL Controls	1.00	EA			4,070	149,664	5,562	190,457	0	345,683	345682.71
TOTAL Gate S17	1.00	EA			5,977	229,188	17,514	379,647	0	626,350	626350.15

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA



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09.07. Gate S18	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.07.03. Concrete												
09.07.03.01. Slab On Grade												
09.07.03.01.01. Base Slab												
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	73.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	0.00	4.28	4.28
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	110.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	0.00	2.49	2.49
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	6.60	TON	SIWRDMD4	0.29	13.89	363.20	0.00	963.00	0.00	0.00	1326.20	1326.20
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	73.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	126.26
TOTAL Base Slab	1.00	EA		123	2,865	26	15,665	0	0	0	18,556	18556.06
TOTAL Slab On Grade	1.00	EA		123	2,865	26	15,665	0	0	0	18,556	18556.06
09.07.03.03. Walls												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	7.57	TON	SIWRDMD4	0.38	10.67	278.93	0.00	963.00	0.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	68.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	0.00	126.26	126.26
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	68.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	0.00	16.22	16.22
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2990.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	0.00	2.90	2.90
TOTAL Walls	1.00	EA		450	9,024	422	18,307	0	0	0	27,753	27753.26
09.07.03.07. Elevated Slabs												
09.07.03.07.01. Elevated Slab												
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	730.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	0.00	2.98	2.98

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATOIA UPB ID: UP01EA

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09.07. Gate S18		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped		34.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		34.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7		3.40	TON	SIWR0DM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
TOTAL Elevated Slab		1.00	EA			130	2,780	129	8,403	0	11,312	11311.68
TOTAL Elevated Slabs		1.00	EA			130	2,780	129	8,403	0	11,312	11311.68
09.07.03.08. Beams												
09.07.03.08.01. Needle Beams												
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7		0.35	TON	SIWR0DM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi		3.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket		3.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders		120.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42
TOTAL Needle Beams		1.00	EA			22	437	40	838	0	1,315	1315.14
TOTAL Beams		1.00	EA			22	437	40	838	0	1,315	1315.14
TOTAL Concrete		1.00	EA			725	15,106	618	43,212	0	58,936	58936.14
09.07.04. Erosion Control System												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas		385.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene		72.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93
TOTAL Erosion Control System		1.00	JB			37	1,333	1,559	10,093	0	12,986	12986.05

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA

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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.07. Gate S18	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
09.07.05. Gates											
USR AA <05150 0001 > Slide Gate 6' x 6' SST	1.00	EA	SIWSE21	0.03	229.89	13577.41	2913.20	18725.00	0.00	35215.61	
					230	13,577	2,913	18,725	0	35,216	35215.61
USR AA <05150 0001 > Weir Gate 6' x 3' SST	1.00	EA	SIWSE21	0.07	112.20	6626.84	1421.87	9416.00	0.00	17464.71	
					112	6,627	1,422	9,416	0	17,465	17464.71
TOTAL Gates	1.00	EA			342	20,204	4,335	28,141	0	52,680	52680.32
09.07.06. Stop Logs											
USR AA <05548 0611 > Stop Log	268.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	
					120	7,485	283	22,941	0	30,708	114.58
TOTAL Stop Logs	1.00	EA			120	7,485	283	22,941	0	30,708	30708.32
09.07.07. Rip Rap											
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3rd, large areas	117.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	
					11	396	471	3,037	0	3,904	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	468.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	
					9	190	69	646	0	905	1.93
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	234.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	
					120	2,465	1,436	5,781	0	9,682	41.37
TOTAL Rip Rap	1.00	EA			140	3,051	1,975	9,464	0	14,491	14490.84
09.07.11. Electrical											
USR EL <16119 0001 > RTU\WOSCAD	1.00	EA	EELEELEC1	0.03	37.04	1896.48	0.00	2140.00	0.00	4036.48	
					37	2,253	0	2,543	0	4,796	4795.74
USR EL <16119 0002 > Actuator Starter & Remote Contrls	2.00	EA	EELEELEC1	0.01	92.59	4741.20	0.00	4815.00	0.00	9556.20	
					185	11,266	0	11,441	0	22,707	11353.73
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	
					0	0	0	0	832	832	831.67
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	
					0	13	0	28	0	41	628.93
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	
					3	152	0	35	0	187	187.12

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
09. Gated Culvert

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09.07. Gate S18

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF EL <16622 5230 > HID fxtr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79 2,885	0.00	0.00	391.89 6,053	0.00	578.68 8,938	687.53
USR EL <16611 4100 > Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51 1,069	0.00	0.00	181.90 1,513	0.00	310.41 2,582	368.80
USR EL <16617 0001 > Light pole foundation 43' tall, round, 3" OD, otagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44 5,934	85.16 1,012	0.00	214.00 2,543	0.00	798.59 9,488	948.81
MIL EL <16617 1040 > Lighting, poles, one 6' arm, 30' T, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89 4,347	62.38 741	0.00	903.35 10,733	0.00	1331.62 15,821	1582.10
USR EL <16617 0002 > Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89 119	17.03 20	0.00	460.10 547	0.00	577.02 686	685.56
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEE1C1	0.21	4.85	248.57 295	0.00	0.00	514.97 612	0.00	763.54 907	907.16
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEE1C1	0.50	2.00	102.41 1,582	0.00	0.00	133.75 2,066	0.00	236.16 3,648	280.58
MIL EL <16325 4320 > Panelboard assem, 12-20A brkr, main lugs, 100A, lph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEE1C1	0.12	8.47	433.94 516	0.00	0.00	332.77 395	0.00	766.71 911	910.93
USR EL <16323 0001 > Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEE1C1	0.42	2.40	122.79 146	0.00	0.00	802.50 953	0.00	925.29 1,099	1099.34
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30 81	0.00	0.00	128.40 153	0.00	196.70 234	233.70
USR EL <03000 0001 > Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95 128	9.87 12	0.00	107.00 127	0.00	224.82 267	267.11
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64 7,878	4.30 7,301	0.00	0.00 0	0.00	8.93 15,179	10.61
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEE1C1	0.14	7.25	371.05 95	0.00	0.00	69.02 18	0.00	440.07 112	522.84
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEE1C1	0.13	8.00	409.64 1,574	0.00	0.00	105.93 407	0.00	515.57 1,982	612.55

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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09.07. Gate S18

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEE1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	1100.03
					19	1,164			541		1,705	
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEE1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	2730.93
					2	111			94		205	
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEE1	3.38	0.30	15.17	0.00	0.00	32.53	0.00	47.70	56.67
					0	18			39		57	
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.27	0.00	4.38	5.20
					4	244			16		260	
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.54	0.00	5.16	6.13
					8	495			57		552	
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.00	0.91	0.00	6.05	7.19
					1	49			9		58	
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	0.00	3.21	0.00	10.92	12.97
					2	110			46		156	
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	77	321.00	0.00	801.57	952.34
					8	494			381		952	
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for IC1 & IC2	2.00	EA	EELEEE1	0.41	2.42	123.98	0.00	0.00	269.11	0.00	393.09	467.03
					5	295			639		934	
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEE1	0.31	3.20	163.86	0.00	0.00	354.06	0.00	517.92	615.34
					3	195			421		615	
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEE1	2.89	0.35	17.70	0.00	0.00	53.50	0.00	71.20	84.59
					0	21			64		85	
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	0.00	1.12	0.00	7.29	8.66
					1	44			8		52	
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.00	0.91	0.00	6.05	7.19
					1	86			15		101	
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.80	0.00	5.43	6.45
					2	121			21		142	
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.27	0.00	4.38	5.20
					38	2,335			152		2,487	
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.16	0.00	4.27	5.08
					4	264			10		274	

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UF01EA

Wed 31 May 2006  
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30% Submittal  
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09.07. Gate S18	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					16	989	0	433	0	1,422	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					102	6,233	0	3,089	0	9,321	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					9	548	0	373	0	921	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					99	5,990	0	2,156	0	8,146	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					56	3,407	0	1,794	0	5,201	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					5	292	0	128	0	420	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					24	1,433	0	755	0	2,188	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					28	1,685	0	606	0	2,291	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					2	122	0	83	0	205	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					0	26	0	13	0	39	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEELEC1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	1.80
					2	117	0	32	0	150	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					46	2,789	0	1,004	0	3,793	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	358.33
					0	26	0	4	0	29	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	93.82
					13	770	0	567	0	1,338	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	515.57
					45	2,713	0	702	0	3,414	612.55
MIL EL <16326 0100 > Panelboard;id ctr ckt brkr, 15 - 50A,bolt-on,10k AIC,1 P,120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	51.66
					2	97	0	25	0	123	61.38

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UF01EA

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09.07. Gate S18

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16326 0310 > Panelboard id ctr ckt brkr, 70 - 100A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEEELEC1	1.00	1.00	51.21	0.00	0.00	20.33	0.00	71.54	84.99
MIL EL <16325 4340 > Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V	1.00	EA	EELEEELEC1	0.08	12.32	630.60	0.00	0.00	428.54	0.00	1059.14	1258.36
NOTE: Use for distribution panel L												
MIL EL <16337 1700 > Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEEELEC1	0.24	4.20	215.15	0.00	0.00	293.18	0.00	508.33	604
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	0.00	1049.67	0.00	2298.57	1,598
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	0.00	293.72	0.00	925.88	174
MIL EL <16119 1200 > Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEEELEC1	0.14	7.25	371.05	0.00	0.00	69.02	0.00	440.07	3,459
MIL EL <16181 6000 > Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	0.00	360.59	0.00	526.15	9
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	0.00	19.57	0.00	85.88	2,143
CIV EL <16213 2744 > Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEEELEC1	0.63	1.60	81.93	0.00	0.00	69.67	0.00	151.60	180
MIL EL <16213 0380 > Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEEELEC1	0.46	2.16	110.59	0.00	0.00	69.98	0.00	180.57	644
MIL EL <16213 0330 > Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D	1.00	EA	EELEEELEC1	0.53	1.90	97.53	0.00	0.00	44.60	0.00	142.13	169
NOTE: Use for 12"x 18" x 6"												
USR EL <16820 3580 > Stilling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	0.00	7490.00	0.00	18763.03	44,585
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEEELEC1	22.50	0.04	2.28	0.00	0.00	1.20	0.00	3.47	2,291
USR EL <16869 0090 > Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	0.00	160.50	0.00	314.78	374
MIL EL <16181 6310 > Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	0.00	19.57	0.00	85.88	102

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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09.07. Gate S18		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
NOTE: Use for 2/0 cadweld													
USR EL <16000 0001 > Concrete antennae pole		1.00	EA	EELER18	0.04	75.69	2088.43	0.00	0.00	3210.00	0.00	5298.43	
NOTE: Includes foundation, ground rod, ground cable, conduit, etc.						76	2,481			3,814	0	6,295	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R		4.00	EA	EELEEE1C1	0.31	3.19	163.59	0.00	0.00	354.06	0.00	517.66	
						13	777			1,683	0	2,460	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch		2.00	EA	EELER19	0.30	8.33	428.38	0.00	0.00	871.23	0.00	1299.60	
						17	1,018			2,070	0	3,088	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R		1.00	EA	EELEEE1C1	0.25	4.00	204.82	0.00	0.00	363.73	0.00	568.55	
						4	243			432	0	675	675.49
NOTE: Use for RTU enclosure													
USR EL <16333 1401 > Photo-cell		1.00	EA	EELER19	1.88	1.33	68.30	0.00	0.00	128.40	0.00	196.70	
						1	81			153	0	234	233.70
USR EL <16711 0011 > Meter Connection by Utility		1.00	LS		0.00	0.00	0.00	0.00	0.00	0.00	700.00	700.00	
						0	0			0	832	832	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position		1.00	EA	EELEEE1C1	0.40	2.50	128.01	0.00	0.00	29.48	0.00	157.49	
						3	152			35	0	187	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1		2.00	EA	EELEEE1C1	0.21	4.85	248.57	0.00	0.00	514.97	0.00	763.54	
						10	591			1,224	0	1,814	907.16
USR EL <13810 5471 > Surge Suppressor		1.00	EA	EELER19	0.48	5.26	270.55	0.00	0.00	107.00	0.00	377.55	
						5	321			127	0	449	448.57
USR EL <13810 0001 > Limit and Rotary Switches		6.00	EA	MSHM20	0.59	4.23	111.98	0.00	0.00	26.75	0.00	138.73	
						25	798			191	0	989	164.83
USR EL <13810 0002 > Push Button Stations		4.00	EA	MSHM20	0.63	4.00	105.93	0.00	0.00	53.50	0.00	159.43	
						16	503			254	0	758	189.42
USR EL <16153 0016 > Cable Termination #10		128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.00	0.54	0.00	5.16	
						12	704			81	0	785	6.13
USR EL <16153 0014 > Cable Termination #14		12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.00	0.21	0.00	4.33	
						1	59			3	0	62	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex		4.00	EA	EELEEE1C1	3.38	0.30	15.17	0.00	0.00	30.82	0.00	45.99	
						1	72			146	0	219	54.64
MIL EL <16234 0160 > Wiring device, concealed switch, 120 volt, 20 amp, SPST		2.00	EA	EELEEE1C1	1.38	0.73	37.24	0.00	0.00	9.68	0.00	46.92	
						1	88			23	0	111	55.75

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA



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09.07. Gate S18										TOTAL COST UNIT COST			
QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST		
MIL EL <16617 3000 >	Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00 EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55			
					4	248	42	1,182	0	1,472			736.09
MIL EL <16617 3500 >	Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00 EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07			
					14	802	137	882	0	1,820			910.17
USR EL <16617 3300 >	Light Pole Foundation	4.00 EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77			
					32	1,899	324	1,170	0	3,392			848.03
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00 EA	EELEEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16			
					14	852	0	1,112	0	1,964			280.58
MIL EL <16181 6020 >	Grounding, laid in trench, copper, bare stranded, 2/0	0.84 MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36			
					8	258	0	1,125	0	1,383			1656.64
USR EL <16865 0125 >	Level Gage	1.00 EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11			
					16	985	0	636	0	1,621			1620.70
MIL EL <16611 3030 >	Surface mtd fluor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00 EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55			
					6	320	0	310	0	630			157.49
USR EL <16611 0001 >	Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00 EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08			
					6	336	0	1,081	0	1,416			708.21
B USR EL <16622 3010 >	Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00 EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08			
					6	336	0	1,081	0	1,416			708.21
MIL EL <16622 3060 >	Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00 EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62			
					9	568	0	1,531	0	2,099			524.68
MIL EL <16611 4120 >	Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00 EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80			
					13	724	0	1,441	0	2,165			270.65
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00 LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93			
					358	18,289	16,951	0	0	35,240			10.61
MIL EL <16119 1400 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03 MLF	EELEEELEC1	0.07	15.15	775.83	0.00	448.33	0.00	1224.16			
					0	28	0	16	0	44			1454.43
MIL EL <16119 1300 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80 MLF	EELEEELEC1	0.10	10.00	512.05	0.00	182.44	0.00	694.48			
					8	487	0	173	0	660			825.12
Currency in DOLLARS										CREW ID: NATO1A UPB ID: UP01EA			
LABOR ID: C43RES EQUIP ID: C43RES													

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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEEE1	0.17	5.75	294.28	0.00	42.80	0.00	337.08	337.08
					1	57		8	0	65	400.49
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	10.92
					5	275		114	0	389	12.97
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	18725.00	0.00	21112.59	21112.59
					40	2,453	384	22,247	0	25,084	25083.87
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEE1	0.16	6.15	315.11	0.00	3107.28	0.00	3422.39	3422.39
					6	374		3,692	0	4,066	4066.14
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEE1	0.42	2.40	122.79	0.00	802.50	0.00	925.29	925.29
					2	146		953	0	1,099	1099.34
TOTAL Electrical	1.00	EA			2,563	146,783	27,000	125,345	1,663	300,792	300791.76

09.07.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARCI	75.00	0.05	0.96	0.00	0.51	0.00	1.48	1.48
					4	65		35	0	100	1.48
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80	1090.80
					3	73		146	0	218	1090.80
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0		631	0	631	126.26
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95	17.95
					3	50	40	0	0	90	17.95
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17
					2	46		0	0	46	0.17
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22	0.22
					3	57		0	0	57	0.22
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23	0.23
					3	61		0	0	61	0.23
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10	18.10
					0	5	4	81	0	90	18.10

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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09.07. Gate S18									
under precast building									
TOTAL Equipment Building									
09.07.95. Controls									
USR MC <15743 0001 > Dewatering Gate IO Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
					251	0	1,073	0	1,324
									1323.70
USR MC <15743 0001 > Level Control Gate IO Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
					251	0	1,073	0	1,324
									1323.70
USR MC <15743 0001 > Upstream Level IO Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
					251	0	1,073	0	1,324
									1323.70
USR MC <15743 0001 > Emergency Generator IO Points									
1.00	EA	N/A	0.00	0.00	200.00	0.00	856.00	0.00	1056.00
					251	0	1,073	0	1,324
									1323.70
USR MC <15743 0001 > Telemetry To/From Gated Structure									
1.00	EA	N/A	0.00	0.00	100.00	0.00	535.00	0.00	635.00
					125	0	671	0	796
									795.97
USR MC <15743 0001 > 16 VHF Data Radios Structure									
1.00	EA	N/A	0.00	0.00	300.00	0.00	1605.00	0.00	1905.00
					376	0	2,012	0	2,388
									2387.92
AF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, Chain trencher									
34000	LF	CODBB54	90.63	0.01	0.47	0.13	0.00	0.00	0.60
				374	20,052	5,562	0	0	25,614
									0.75
USR MC <15743 0001 > Control Conduit & Cable									
34000	LF	EELER18	30.35	0.11	3.00	0.00	4.28	0.00	7.28
				3,696	127,857	0	182,409	0	310,266
									9.13
TOTAL Controls									
1.00	EA			4,070	149,413	5,562	189,384	0	344,359
									344359.01
TOTAL Gate S18									
1.00	EA			8,145	350,913	43,052	471,204	1,663	866,833
									866832.51

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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09.08. Gate S19	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
09.08. Gate S19											
09.08.03. Concrete											
09.08.03.01. Slab On Grade											
09.08.03.01.01. Base Slab											
MIL AA <03372 4600 > Placing conc, slab on grade, over 6" thick, direct chute	60.00	CY	ULABC6	20.63	0.29	3.93	0.36	0.00	0.00	4.28	4.28
					17	236	22	0	0	257	257
MIL AA <03170 3060 > Forms in place, SOG, edge forms, wood, over 12", 4 use	110.00	SF	ACARC1	43.75	0.09	1.65	0.00	0.83	0.00	2.49	2.49
					10	182	0	92	0	273	273
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	5.43	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20
					75	1,972	0	5,229	0	7,201	7,201
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	60.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	7,576	0	7,576	7,576
TOTAL Base Slab	1.00	EA			103	2,389	22	12,896	0	15,307	15307.33
-----											
TOTAL Slab On Grade	1.00	EA			103	2,389	22	12,896	0	15,307	15307.33
09.08.03.03. Walls											
M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	6.12	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93
					65	1,707	0	5,894	0	7,601	7,601
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	55.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26	126.26
					0	0	0	6,944	0	6,944	6,944
MIL AA <03372 5100 > Placing conc, walls, 12" thick, pumped	55.00	CY	CLABC20	13.75	0.58	10.01	6.21	0.00	0.00	16.22	16.22
					32	550	342	0	0	892	892
MIL AA <03182 2150 > Forms in place, walls, below gr, to 8' high, 4 use, job built plywood	2320.00	SF	ACARC2	54.38	0.11	2.08	0.00	0.81	0.00	2.90	2.90
					256	4,835	0	1,887	0	6,722	6,722
TOTAL Walls	1.00	EA			353	7,093	342	14,724	0	22,159	22158.97
-----											
09.08.03.07. Elevated Slabs											
09.08.03.07.01. Elevated Slab											
CIV AA <03150 1500 > Forms in place, elev slab, flat plate plywd 15'-20' high 4 use	612.00	SF	ACARC2	61.88	0.10	1.83	0.00	1.14	0.00	2.98	2.98
					59	1,121	0	701	0	1,822	1,822

LABOR ID: C43RES      EQUIP ID: C43RES      Currency in DOLLARS      CREW ID: NATO1A      UPB ID: UF01EA

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09.08. Gate S19

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	612.00	SF	ACMACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17	0.17	0.17
AF AA <03372 1600 > Placing conc, elev slabs, over 10" thick, pumped	20.00	CY	CLABC20	22.50	0.36	6.12	3.80	0.00	0.00	9.91	9.91	9.91
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	20.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	2,525	126.26	2,525
M MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	2.00	TON	SIWRRODM4	0.29	13.89	363.20	0.00	963.00	0.00	1326.20	1326.20	1326.20
TOTAL Elevated Slab	1.00	EA			100	2,076	76	5,152	0	7,303	7303.44	7,303
TOTAL Elevated Slabs	1.00	EA			100	2,076	76	5,152	0	7,303	7303.44	7,303

09.08.03.08. Beams

09.08.03.08.01. Needle Beams

M MIL AA <03217 0700 > Reinforcing in place, walls, #3 to #7	0.24	TON	SIWRRODM4	0.38	10.67	278.93	0.00	963.00	0.00	1241.93	1241.93	1241.93
M RSM AA <03326 0300 > Concrete ready mix, regular weight, 4000 psi	2.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	253	126.26	253
MIL AA <03372 0250 > Placing conc, beams, large, elev, w/crane & bucket	2.00	CY	ULABC7	8.13	0.98	16.94	13.44	0.00	0.00	30.38	30.38	30.38
CIV AA <03138 2150 > Forms in place, 12" w, plywood, 4 use, Beams & girders	110.00	SF	ACARC2	47.13	0.13	2.40	0.00	1.02	0.00	3.42	3.42	3.42
TOTAL Needle Beams	1.00	EA			19	365	27	595	0	988	987.68	988
TOTAL Beams	1.00	EA			19	365	27	595	0	988	987.68	988
TOTAL Concrete	1.00	EA			574	11,923	466	33,368	0	45,757	45757.42	45,757

09.08.04. Erosion Control System

MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	315.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37	33.37
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	58.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93	1.93

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

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09.08. Gate S19	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
TOTAL Erosion Control System	1.00	JB			30	1,091	1,276	8,257	0	10,623	10623.19	
09.08.05. Gates												
USR AA <05150 0001 > Slide Gate 10' x 6' SST	1.00	EA	SIWSE21	0.02	459.77	27154.81	5826.40	28890.00	0.00	61871.21	61871.21	
					460	27,155	5,826	28,890	0	61,871	61871.21	
TOTAL Gates	1.00	EA			460	27,155	5,826	28,890	0	61,871	61871.21	
09.08.06. Stop Logs												
USR AA <05548 0611 > Stop Log	204.00	SF	SIWSE4	8.93	0.45	27.93	1.06	85.60	0.00	114.58	114.58	
					91	5,697	215	17,462	0	23,375	114.58	
TOTAL Stop Logs	1.00	EA			91	5,697	215	17,462	0	23,375	23374.99	
09.08.07. Rip Rap												
MIL AA <02244 1510 > Base course, crushed stone, 3/4" max size, compacted, 3"D, large areas	125.00	CY	COFGB36C	54.38	0.09	3.39	4.02	25.96	0.00	33.37	33.37	
					12	423	503	3,245	0	4,171	33.37	
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	500.00	SY	ULABA2	150.00	0.02	0.41	0.15	1.38	0.00	1.93	1.93	
					10	203	74	690	0	967	1.93	
MIL AA <02270 1000 > Rip-rap, random pieces, dumped from truck, 3/8 - 1/4 CY	250.00	CY	CODEB3A	9.75	0.51	10.53	6.14	24.71	0.00	41.37	41.37	
					128	2,633	1,534	6,177	0	10,344	41.37	
TOTAL Rip Rap	1.00	EA			150	3,260	2,110	10,112	0	15,482	15481.66	
09.08.11. Electrical												
USR EL <16119 0001 > RTU\MOSCAD	1.00	EA	EEEEELEC1	0.03	36.90	1889.48	0.00	2140.00	0.00	4029.48	4029.48	
					37	2,245	0	2,543	0	4,787	4787.43	
USR EL <16119 0002 > Actuator Starter & Remote Cntrls	1.00	EA	EEEEELEC1	0.01	90.91	4655.00	0.00	4815.00	0.00	9470.00	9470.00	
					91	5,531	0	5,721	0	11,251	11251.31	
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS			0.00	0.00	0.00	700.00	0.00	700.00	700.00	
					0	0	0	832	0	832	831.67	
USR EL <16181 5999 > Grounding, laid in trench, copper, bare stranded, #6	0.07	MLF	EELER18	0.55	6.00	165.56	0.00	363.80	0.00	529.36	529.36	
					0	13	0	28	0	41	628.93	
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EEEEELEC1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	157.49	
					3	152	0	35	0	187	187.12	

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UF01EA

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09.08. Gate S19										TOTAL COST UNIT COST			
		QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
AF EL <16622 5230 >	HID Extr, floodlight, 250W high press sodium lamp, encl, heavy duty	13.00	EA	EELER19	0.69	3.63	186.79	0.00	0.00	391.89	0.00	578.68	8,938
USR EL <16611 4100 >	Compact Fluorescent	7.00	EA	EELER19	1.00	2.50	128.51	0.00	0.00	181.90	0.00	310.41	2,582
USR EL <16617 0001 >	Light pole foundation 43' tall, round, 3" OD, otagonal, conc	10.00	EA	EELER15	0.60	10.00	499.44	85.16	1,012	214.00	0.00	798.59	9,488
MIL EL <16617 1040 >	Lighting, poles, one 6' arm, 30' I, roadway, galv steel, rnd, tapered	10.00	EA	EELER15	0.82	7.33	365.89	62.38	741	903.35	0.00	1331.62	15,821
USR EL <16617 0002 >	Lighting, poles, wood, 20' NOTE: Use for Meter Pole	1.00	EA	EELER15	3.00	2.00	99.89	17.03	20	460.10	0.00	577.02	686
MIL EL <16338 4400 >	Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	1.00	EA	EELEEE1C1	0.21	4.85	248.57	0.00	0	514.97	0.00	763.54	907
USR EL <16181 0105 >	Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	13.00	EA	EELEEE1C1	0.50	2.00	102.41	0.00	0	133.75	0.00	236.16	3,648
MIL EL <16325 4320 >	Panelboard assem, 12-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V NOTE: Use for Panel L	1.00	EA	EELEEE1C1	0.12	8.47	433.94	0.00	0	332.77	0.00	766.71	911
USR EL <16323 0001 >	Nema 4X Stainless steel encl NOTE: Use for Lighting Controller	1.00	EA	EELEEE1C1	0.42	2.40	122.79	0.00	0	802.50	0.00	925.29	1,099
USR EL <16333 1401 >	Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	0	128.40	0.00	196.70	234
USR EL <03000 0001 >	Concrete foundation NOTE: Use for lighting controller	1.00	EA	ULABC6	0.75	8.00	107.95	9.87	12	107.00	0.00	224.82	267
MIL EL <02230 4020 >	Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	1430.00	LF	COETR23	33.25	0.11	4.64	4.30	7,301	0.00	0.00	8.93	15,179
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	0.22	MLF	EELEEE1C1	0.14	7.25	371.05	0.00	0	69.02	0.00	440.07	112
MIL EL <16119 1250 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #10	3.24	MLF	EELEEE1C1	0.13	8.00	409.64	0.00	0	105.93	0.00	515.57	1,982

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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U.S. Army Corps of Engineers  
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	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16119 1350 > Wire, 600 volt, type THWN-THHN, copper, stranded, #6	1.55	MLF	EELEEELEC1	0.08	12.35	632.16	0.00	293.72	0.00	925.88	1100.03
MIL EL <16119 1600 > Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.08	MLF	EELEEELEC1	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	2730.93
MIL EL <16232 2482 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex	1.00	EA	EELEEELEC1	3.38	0.30	15.17	0.00	32.53	0.00	47.70	56.67
USR EL <16153 0014 > Cable Termination #12	50.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0013 > Cable Termination #10	90.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	6.13
USR EL <16153 0012 > Cable Termination #6	8.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0010 > Cable Termination #1/0	12.00	EA	EELER19	16.67	0.15	7.71	0.00	3.21	0.00	10.92	12.97
MIL EL <16711 0500 > Elec & tel sitewk, 2'x2'x2'-6" D, hand holes, precast conc, w/conc cov	1.00	EA	EELER3	0.31	7.99	415.55	65.02	321.00	0.00	801.57	952.34
MIL EL <16333 0620 > Contactor, lighting, 30 amp, 600 volt 4 pole, electrically held NOTE: Use for LC1 & LC2	2.00	EA	EELEEELEC1	0.41	2.42	123.98	0.00	269.11	0.00	393.09	467.03
MIL EL <16338 5510 > Safety switch, nvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	1.00	EA	EELEEELEC1	0.31	3.20	163.86	0.00	354.06	0.00	517.92	615.34
USR EL <16232 2483 > Wiring device, receptacle, gnd fault intrpt, 20 amp, duplex WP	1.00	EA	EELEEELEC1	2.89	0.35	17.70	0.00	53.50	0.00	71.20	84.59
USR EL <16153 0011 > Cable Termination #4	6.00	EA	EELER19	20.83	0.12	6.17	0.00	1.12	0.00	7.29	8.66
USR EL <16153 0012 > Cable Termination #6	14.00	EA	EELER19	25.00	0.10	5.14	0.00	0.91	0.00	6.05	7.19
USR EL <16153 0013 > Cable Termination #8	22.00	EA	EELER19	27.78	0.09	4.63	0.00	0.80	0.00	5.43	6.45
USR EL <16153 0014 > Cable Termination #12	478.00	EA	EELER19	31.25	0.08	4.11	0.00	0.27	0.00	4.38	5.20
USR EL <16153 0016 > Cable Termination #16	54.00	EA	EELER19	31.25	0.08	4.11	0.00	0.16	0.00	4.27	5.08

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA



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09.08. Gate S19	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	254.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					16	989	0	433	0	1,422	5.60
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	1191.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					102	6,233	0	3,089	0	9,321	7.83
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	90.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					9	548	0	373	0	921	10.23
MIL EL <16712 1030 > Conduit, direct burial, PVC sched 40, 1" dia, w/coupling	3200.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					99	5,990	0	2,156	0	8,146	2.55
MIL EL <16712 1050 > Conduit, direct burial, PVC sched 40, 2" dia, w/coupling	1260.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					56	3,407	0	1,794	0	5,201	4.13
MIL EL <16018 0520 > Conduit to 15' H, 3/4" dia, incl couplings only, steel rigid galv	75.00	LF	EELEELEC1	15.63	0.06	3.28	0.00	1.43	0.00	4.71	4.71
					5	292	0	128	0	420	5.60
MIL EL <16712 1050 > Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	530.00	LF	EELEELEC1	22.50	0.04	2.28	0.00	1.20	0.00	3.47	3.47
					24	1,433	0	755	0	2,188	4.13
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	900.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					28	1,685	0	606	0	2,291	2.55
MIL EL <16018 0580 > Conduit to 15' H, 1.5" dia, incl couplings only, steel rigid galv	20.00	LF	EELEELEC1	10.00	0.10	5.12	0.00	3.49	0.00	8.61	8.61
					2	122	0	83	0	205	10.23
MIL EL <16018 0540 > Conduit to 15' H, 1" dia, incl couplings only, steel rigid galv	5.00	LF	EELEELEC1	11.63	0.09	4.40	0.00	2.18	0.00	6.59	6.59
					0	26	0	13	0	39	7.83
MIL EL <16712 1020 > Conduit, direct burial only, PVC sched 40, 3/4" dia, w/coupling	70.00	LF	EELEELEC1	36.25	0.03	1.41	0.00	0.39	0.00	1.80	1.80
					2	117	0	32	0	150	2.14
MIL EL <16712 1030 > Conduit, direct burial only, PVC sched 40, 1" dia, w/coupling	1490.00	LF	EELEELEC1	32.50	0.03	1.58	0.00	0.57	0.00	2.14	2.14
					46	2,789	0	1,004	0	3,793	2.55
RSM EL <16119 0920 > Wire, 600 volt, type THWN-THHN, copper, solid, #14	0.07	MLF	EELEELEC1	0.16	6.14	314.14	0.00	44.19	0.00	358.33	358.33
					0	26	0	4	0	29	425.73
CIV EL <16153 0320 > Cable termn to 600V, #22-#10, screw type, 12 pt, term blocks NOTE: Use for #14, 3 pr #20, and #10	12.00	EA	EELER20	1.24	1.05	54.01	0.00	39.80	0.00	93.82	93.82
					13	770	0	567	0	1,338	111.46
MIL EL <16119 1250 > Wire, 600 volt, type THWN-THHN, copper, stranded, #10	5.57	MLF	EELEELEC1	0.13	8.00	409.64	0.00	105.93	0.00	515.57	515.57
					45	2,713	0	702	0	3,414	612.55
MIL EL <16326 0100 > Panelboard&ld ctr ckt brkr, 15 - 50A, bolt-on, 10k AIC, 1 P, 120V	2.00	EA	EELEELEC1	1.25	0.80	40.96	0.00	10.70	0.00	51.66	51.66
					2	97	0	25	0	123	61.38

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NATO1A UPB ID: UPO1EA

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09.08. Gate S19										TOTAL COST UNIT COST			
		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST	
MIL EL <16326 0310 >	Panelboard&ld ctr ckt brkr, 70 - 100A, bolt-on, 10K AIC, 1 P, 120V	2.00	EA	EELEELECI	1.00	1.00	51.21	0.00	20.33	0.00	71.54	84.99	
MIL EL <16325 4340 >	Panelboard assem, 20-20A brkr, main lugs, 100A, 1ph, 3 wire, 120/240V	1.00	EA	EELEELECI	0.08	12.32	630.60	0.00	428.54	0.00	1059.14	1,258	1258.36
NOTE: Use for distribution panel L													
MIL EL <16337 1700 >	Safety switch, heavy duty, 600 V, 3 pole non fused, 100 A	1.00	EA	EELEELECI	0.24	4.20	215.15	0.00	293.18	0.00	508.33	604	603.94
MIL EL <16119 1600 >	Wire, 600 volt, type THWN-THHN, copper, stranded, 1/0	0.59	MLF	EELEELECI	0.04	24.39	1248.90	0.00	1049.67	0.00	2298.57	1,598	2730.93
MIL EL <16119 1350 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #6	0.16	MLF	EELEELECI	0.08	12.35	632.16	0.00	293.72	0.00	925.88	174	1100.03
MIL EL <16119 1200 >	Wire, 600 volt, type THWN-THHN, copper, stranded, #12	6.62	MLF	EELEELECI	0.14	7.25	371.05	0.00	69.02	0.00	440.07	3,459	522.84
MIL EL <16181 6000 >	Grounding, laid in trench, copper, bare stranded, #4	0.02	MLF	EELER18	0.55	6.00	165.56	0.00	360.59	0.00	526.15	9	625.11
MIL EL <16181 6310 >	Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	21.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	2,143	102.04
CIV EL <16213 2744 >	Pull box, hinged, steel, NEMA 4, 12"W x 12"H x 6"D	1.00	EA	EELEELECI	0.63	1.60	81.93	0.00	69.67	0.00	151.60	180	180.11
MIL EL <16213 0380 >	Pull box, sheet metal, NEMA 1, type SC, 24"W x 18"H x 6"D	3.00	EA	EELEELECI	0.46	2.16	110.59	0.00	69.98	0.00	180.57	644	214.54
MIL EL <16213 0330 >	Pull box, sheet metal, NEMA 1, type SC, 18"W x 18"H x 6"D	1.00	EA	EELEELECI	0.53	1.90	97.53	0.00	44.60	0.00	142.13	169	168.87
NOTE: Use for 12"x 18" x 6"													
USR EL <16820 3580 >	Stillling well	2.00	EA	EELER19	0.01	219.30	11273.03	0.00	7490.00	0.00	18763.03	44,585	22292.35
MIL EL <16712 1050 >	Conduit, direct burial only, PVC sched 40, 2" dia, w/coupling	555.00	LF	EELEELECI	22.50	0.04	2.28	0.00	1.20	0.00	3.47	2,291	4.13
USR EL <16869 0090 >	Lighting Contactor	1.00	EA	EELER19	0.83	3.00	154.28	0.00	160.50	0.00	314.78	374	373.99
MIL EL <16181 6310 >	Grounding, gnd conductor bond, 4/0-300 MCM, splice or lug, cadweld	1.00	EA	EELER19	1.94	1.29	66.31	0.00	19.57	0.00	85.88	102	102.04

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY IN DOLLARS CREW ID: NATO1A UPB ID: UP01EA

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NOTE: Use for 2/0 cadweld

USR EL <16000 0001 > Concrete antennae pole  
NOTE: Includes foundation,  
ground rod, ground cable,  
conduit, etc.

MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp,  
w/ fuse, 600 volt, 3 pole NEMA  
3R

MIL EL <16313 9650 > Motor starter & cont, NEMA 1,  
size 1, comb, rev, w/disc switch

CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x  
12"D, sheet met, dbl dr, NEMA  
3R

NOTE: Use for RTU enclosure

USR EL <16333 1401 > Photo-cell

USR EL <16711 0011 > Meter Connection by Utility

RSM EL <16324 0100 > Meter centers & sockets, 4 term,  
100 A, socket, 1 position

MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp,  
w/ fuse, 600 volt, 3 pole NEMA 1

USR EL <13810 5471 > Surge Suppressor

USR EL <13810 0001 > Limit and Rotary Switches

USR EL <13810 0002 > Push Button Stations

USR EL <16153 0016 > Cable Termination #10

USR EL <16153 0014 > Cable Termination #14

AF EL <16232 2480 > Wiring device, receptacle, gnd  
fault intrpt, 15 amp, duplex

MIL EL <16234 0160 > Wiring device, concealed switch,  
120 volt, 20 amp, SPST

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UF01EA

	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16000 0001 > Concrete antennae pole NOTE: Includes foundation, ground rod, ground cable, conduit, etc.	1.00	EA	EELER18	0.04	75.69	2088.43	0.00	3210.00	0.00	5298.43	
					76	2,481	0	3,814	0	6,295	6295.07
MIL EL <16338 5510 > Safety switch, hvy dty, 30 amp, w/ fuse, 600 volt, 3 pole NEMA 3R	4.00	EA	EELEEE1C1	0.31	3.19	163.59	0.00	354.06	0.00	517.66	
					13	777	0	1,683	0	2,460	615.03
MIL EL <16313 9650 > Motor starter & cont, NEMA 1, size 1, comb, rev, w/disc switch	2.00	EA	EELER19	0.30	8.33	428.38	0.00	871.23	0.00	1299.60	
					17	1,018	0	2,070	0	3,088	1544.06
CIV EL <16213 1710 > Cabinet, hinged, 36"W x 30"H x 12"D, sheet met, dbl dr, NEMA 3R	1.00	EA	EELEEE1C1	0.25	4.00	204.82	0.00	363.73	0.00	568.55	
					4	243	0	432	0	675	675.49
USR EL <16333 1401 > Photo-cell	1.00	EA	EELER19	1.88	1.33	68.30	0.00	128.40	0.00	196.70	
					1	81	0	153	0	234	233.70
USR EL <16711 0011 > Meter Connection by Utility	1.00	LS		0.00	0.00	0.00	0.00	0.00	700.00	700.00	
					0	0	0	0	832	832	831.67
RSM EL <16324 0100 > Meter centers & sockets, 4 term, 100 A, socket, 1 position	1.00	EA	EELEEE1C1	0.40	2.50	128.01	0.00	29.48	0.00	157.49	
					3	152	0	35	0	187	187.12
MIL EL <16338 4400 > Safety switch, hvy dty, 100 amp, w/ fuse, 600 volt, 3 pole NEMA 1	2.00	EA	EELEEE1C1	0.21	4.85	248.57	0.00	514.97	0.00	763.54	
					10	591	0	1,224	0	1,814	907.16
USR EL <13810 5471 > Surge Suppressor	1.00	EA	EELER19	0.48	5.26	270.55	0.00	107.00	0.00	377.55	
					5	321	0	127	0	449	448.57
USR EL <13810 0001 > Limit and Rotary Switches	6.00	EA	MSHM020	0.59	4.23	111.98	0.00	26.75	0.00	138.73	
					25	798	0	191	0	989	164.83
USR EL <13810 0002 > Push Button Stations	4.00	EA	MSHM020	0.63	4.00	105.93	0.00	53.50	0.00	159.43	
					16	503	0	254	0	758	189.42
USR EL <16153 0016 > Cable Termination #10	128.00	EA	EELER19	27.78	0.09	4.63	0.00	0.54	0.00	5.16	
					12	704	0	81	0	785	6.13
USR EL <16153 0014 > Cable Termination #14	12.00	EA	EELER19	31.25	0.08	4.11	0.00	0.21	0.00	4.33	
					1	59	0	3	0	62	5.14
AF EL <16232 2480 > Wiring device, receptacle, gnd fault intrpt, 15 amp, duplex	4.00	EA	EELEEE1C1	3.38	0.30	15.17	0.00	30.82	0.00	45.99	
					1	72	0	146	0	219	54.64
MIL EL <16234 0160 > Wiring device, concealed switch, 120 volt, 20 amp, SPST	2.00	EA	EELEEE1C1	1.38	0.73	37.24	0.00	9.68	0.00	46.92	
					1	88	0	23	0	111	55.75

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09.08. Gate S19		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL EL <16617 3000 > Poles, area lighting, 10' tall, round, 3" OD, al, non-tapered	2.00	EA	EELER15	2.88	2.09	104.23	17.77	497.55	0.00	619.55	1,472	736.09
MIL EL <16617 3500 > Poles, area lighting, 20' tall, round, 3" OD, galv steel, tapered	2.00	EA	EELER15	0.89	6.76	337.46	57.54	371.08	0.00	766.07	1,820	910.17
USR EL <16617 3300 > Light Pole Foundation	4.00	EA	EELER15	0.75	8.00	399.55	68.12	246.10	0.00	713.77	3,392	848.03
USR EL <16181 0105 > Ground Rod 3/4" x 20' Long amp, enclosed 600 volt, 3 pole	7.00	EA	EELEEELEC1	0.50	2.00	102.41	0.00	133.75	0.00	236.16	1,964	280.58
MIL EL <16181 6020 > Grounding, laid in trench, copper, bare stranded, 2/0	0.84	MLF	EELER18	0.35	9.43	260.16	0.00	1134.20	0.00	1394.36	1,383	1656.64
USR EL <16865 0125 > Level Gage	1.00	EA	EELER19	0.16	16.13	829.11	0.00	535.00	0.00	1364.11	1,621	1620.70
MIL EL <16611 3030 > Surface mtd floor fxtr, 1'x4', two 40W, drop opal lens NOTE: Use for type A (PF8)	4.00	EA	EELER22	3.25	1.43	67.39	0.00	65.16	0.00	132.55	630	157.49
USR EL <16611 0001 > Ltg fxtr, 175w Metal Halide (EH-1) NOTE: Use for fixture type B	2.00	EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	1,416	708.21
B USR EL <16622 3010 > Ltg fxtr, 175w Metal Halide (EH1) NOTE: Use for fixture type C	2.00	EA	EELEEELEC2	0.72	2.76	141.33	0.00	454.75	0.00	596.08	1,416	708.21
MIL EL <16622 3060 > Ltg, HID fxtr, 250W security, ext wall NOTE: Use for type D (250w Metal Halide EH9)	4.00	EA	EELER19	1.08	2.33	119.55	0.00	322.07	0.00	441.62	2,099	524.68
MIL EL <16611 4120 > Ltg fxtr, surf/pendant mtd, compact fluorescent mini flood NOTE: Use for type E (E12)	8.00	EA	EELER22	2.88	1.62	76.18	0.00	151.62	0.00	227.80	2,165	270.65
MIL EL <02230 4020 > Excavate utility trench, 30" deep, 24" wide, 40 HP, chain trencher	3320.00	LF	COETR23	33.25	0.11	4.64	4.30	0.00	0.00	8.93	35,240	10.61
MIL EL <16119 1400 > Wire, 600 volt, type THWN-THHN, copper, stranded, #4	0.03	MLF	EELEEELEC1	0.07	15.15	775.93	0.00	448.33	0.00	1224.16	44	1454.43
MIL EL <16119 1300 > Wire, 600 volt, type THWN-THHN, copper, stranded, #8	0.80	MLF	EELEEELEC1	0.10	10.00	512.05	0.00	182.44	0.00	694.48	660	825.12

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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09.08. Gate S19

	QUANTY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
USR EL <16119 0990 > Wire, 600 volt, type THWN-THHN, #16	0.16	MLF	EELEEEEC1	0.17	5.75	294.28	0.00	0.00	42.80	0.00	337.08	65
USR EL <16153 0010 > Cable Termination #1/0	30.00	EA	EELER19	16.67	0.15	7.71	0.00	0.00	3.21	0.00	10.92	389
USR EL <16513 2015 > Emergency Generator 20 KW	1.00	EA	EELER3	0.06	39.68	2064.57	323.02	384	22,247	0	21112.59	25,084
MIL EL <16511 1330 > Automatic transfer switch, 100 amp, enclosed 600 volt, 3 pole	1.00	EA	EELEEEEC1	0.16	6.15	315.11	0.00	0.00	3107.28	0.00	3422.39	4,066
USR EL <16323 0001 > Terminal Box	1.00	EA	EELEEEEC1	0.42	2.40	122.79	0.00	0.00	802.50	0.00	925.29	1,099
TOTAL Electrical	1.00	EA			2,468	141,039	27,000		119,624	1,663	289,327	289327.30

09.08.15. Equipment Building

USR AA <03450 0001 > Precast Concrete Building Note:  
Note: Material price from  
Concrete Modular Systems  
727-945-1756  
ATTN: Frederick Kennedy

MIL AA <03170 3000 > Forms in place, SOG, edge forms, wood, to 6" high, 4 use	68.00	LF	ACARC1	75.00	0.05	0.96	0.00	0.51	0.00	1.48
					4	65	0	35	0	100
MIL AA <03217 0600 > Reinforcing in place, slab on grade, #3 to #7	0.20	TON	SIWRRODM4	0.29	13.89	363.20	0.00	727.60	0.00	1090.80
					3	73	0	146	0	218
M RSM AA <03326 0300 > Concrete ready mix, regular weight 1:3:5 mix 4000 psi	5.00	CY	N/A	0.00	0.00	0.00	0.00	126.26	0.00	126.26
					0	0	0	631	0	631
MIL AA <03372 4400 > Placing conc, slab on grade, 6" thick, w/crane & bucket	5.00	CY	ULABC7	13.75	0.58	10.01	7.94	0.00	0.00	17.95
					3	50	40	0	0	90
MIL AA <03396 0010 > Finishing floors, monolithic, screed finish	264.00	SF	ACWACEF11	112.50	0.01	0.17	0.00	0.00	0.00	0.17
					2	46	0	0	0	46
MIL AA <03396 0100 > Finishing floors, monolithic, float finish	264.00	SF	ACWACEF11	90.63	0.01	0.22	0.00	0.00	0.00	0.22
					3	57	0	0	0	57
MIL AA <03396 0150 > Finishing floors, monolithic, broom finish	264.00	SF	ACWACEF11	84.38	0.01	0.23	0.00	0.00	0.00	0.23
					3	61	0	0	0	61
MIL AA <02215 2460 > Backfill, sand bedding trenches, front-end loader, 1.5 CY NOTE: Use for granular fill	5.00	CY	CODFB10N	47.50	0.03	1.07	0.77	16.26	0.00	18.10
					0	5	4	81	0	90

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09.08. Gate S19		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIP	MNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
under precast building													
TOTAL Equipment Building		1.00	JB			148	7,537	1,720		42,623	0	51,880	51880.06
09.08.95. Controls													
USR MC <15743 0001 > Dewatering Gate IO Points		1.00	EA	N/A	0.00	0.00	200.00	0.00		856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Upstream Downstream Level IO Points		2.00	EA	N/A	0.00	0.00	200.00	0.00		856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Emergency Generator IO Points		1.00	EA	N/A	0.00	0.00	200.00	0.00		856.00	0.00	1056.00	1056.00
USR MC <15743 0001 > Telemetry To/From Gated Structure		1.00	EA	N/A	0.00	0.00	100.00	0.00		535.00	0.00	635.00	635.00
USR MC <15743 0001 > 16 VHF Data Radios Structure		1.00	EA	N/A	0.00	0.00	300.00	0.00		1605.00	0.00	1905.00	1905.00
RF MC <02230 2850 > Excavate utility trench, 36" deep, 12" wide, 40 HP, chain trencher		36000	LF	CODBB54	90.63	396	21,232	5,889		0.00	0.00	27,121	0.75
USR MC <15743 0001 > Control Conduit & Cable		36000	LF	EELER18	30.35	3,913	135,378	0		193,139	0	328,517	9.13
TOTAL Controls		1.00	EA			4,309	158,114	5,889		200,114	0	364,117	364116.68
TOTAL Gate S19		1.00	EA			8,231	355,816	44,503		460,450	1,663	862,433	862432.53
TOTAL Gated Culvert		1.00	EA			56,042	2,356,412	315,981		3,485,603	9,980	6,167,977	6167977

LABOR ID: C43RES EQUIP ID: C43RES

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMENT	MATERIAL	OTHER	TOTAL COST	UNIT COST
10.01. Vehicle Barrier Gate												
10. Sitework												
10.01. Vehicle Barrier Gate												
USR AA <02831 7792 > Vehicle Barrier Gate		3.00	EA	ULABN	0.40	10.00	199.80	155.57	963.00	0.00	1318.38	
						30	599	467	2,889	0	3,955	1318.38
TOTAL Vehicle Barrier Gate		1.00	EA			30	599	467	2,889	0	3,955	3955.13

LABOR ID: C43RES EQUIP ID: C43RES

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10.02. Floating Safety Barrier	QUANTITY	DOM	CREW	ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT	COST
USR AA <05180 0001 > Floating Safety Barrier	3752.00	LF	SIWSE17		8.36	0.24	14.97	0.00	16.05	0.00	31.02		31.02
						897	56,161	0	60,220	0	116,381		116,381
TOTAL Floating Safety Barrier	1.00	EA				897	56,161	0	60,220	0	116,381		116,381.04

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA



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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMT	MATERIAL	OTHER	TOTAL COST	UNIT COST
10.03. Floating Weed Barrier												
USR AA <05180 0001 > Floating Weed Barrier		3057.00	LF	SIWSE17	8.36	0.24 731	14.97 45,758	0.00	16.05 49,065	0.00	31.02 94,823	31.02
TOTAL Floating Weed Barrier		1.00	EA			731	45,758	0	49,065	0	94,823	94823.25

LABOR ID: C43RES

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CREW ID: NAT01A

UPB ID: UF01EA

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10.10. Silt Fence	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
MIL AA <02266 1120 > Erosion control, w/7.5' posts, silt fence, 3' high, polypropylene	129402	LF	ALABCLAB2	43.75	0.05	0.55	0.00	0.72	0.00	1.27	1.27
					5,914	71,546	0	92,768	0	164,315	1.27
TOTAL Silt Fence	129402	LF			5,914	71,546	0	92,768	0	164,315	1.27

10.10. Silt Fence

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UF01EA

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10.20. Access Road	QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
-----											
10.20. Access Road											
10.20.01. Toe Road/Access Road Shell Rock											
M MIL AA <02244 1510 > Shell Rock Base	115795	CY	COFGB36C	54.38	10,853	392,256	465,797	743,404	0	1,601,456	13.83
					0.09	3.39	4.02	6.42	0.00	13.83	
					10,853	392,256	465,797	743,404	0	1,601,456	13.83
TOTAL Toe Road/Access Road Shell Rock	1.00	EA			10,853	392,256	465,797	743,404	0	1,601,456	1601456
10.20.02. Asphalt Paving											
M MIL AA <02244 1510 > Shell Rock Base	7873.00	CY	COFGB36C	54.38	724	26,670	31,670	50,545	0	108,884	13.83
					0.09	3.39	4.02	6.42	0.00	13.83	
CIV AA <02250 2140 > Geotextile fabric, 120 mil thick, non-woven polypropylene	44344	SY	ULABA2	150.00	887	18,021	6,536	61,208	0	85,766	1.93
					0.02	0.41	0.15	1.38	0.00	1.93	
M RSM AA <02505 0810 > Asphaltic conc pavement, highway, Structural Course	5453.00	TON	COKCB25	78.75	762	16,025	9,693	233,388	0	259,107	47.52
					0.14	2.94	1.78	42.80	0.00	47.52	
M RSM AA <02505 0850 > Asphaltic conc pavement, highway, Friction Course	1689.00	TON	COKCB25B	71.88	282	6,486	4,392	72,289	0	83,166	49.24
					0.17	3.84	2.60	42.80	0.00	49.24	
TOTAL Asphalt Paving	1.00	EA			2,655	67,202	52,291	417,430	0	536,923	536923.40
TOTAL Access Road											
	1.00	EA			13,308	459,458	518,088	1,160,834	0	2,138,380	2138380
TOTAL Sitework											
	1.00	EA			20,881	633,523	518,555	1,365,776	0	2,517,854	2517854

LABOR ID: C43RES EQUIP ID: C43RES

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11. Site Electrical

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		QUANTITY	UOM	CREW ID	OUTPUT	MANHRS	LABOR	EQUIPMNT	MATERIAL	OTHER	TOTAL COST	UNIT COST
11.01. Power Line Relocation												
11. Site Electrical												
11.01. Power Line Relocation												
USR AB <16910 0005 > Relocated Overhead Power Line		1.00	LS		0.00	0.00	0.00	0.00	0.00	815,000.00	815,000.00	
						0	0	0	0	815,000	815,000	815,000.00
TOTAL Power Line Relocation		1.00	JB			0	0	0	0	815,000	815,000	815,000.00
TOTAL Site Electrical		1.00	EA			0	0	0	0	815,000	815,000	815,000.00
TOTAL C43 West Storage Reservoir		1.00	EA			2065469	63184790	60339360	67444953	1,051,828	192,020,932	192020932

LABOR ID: C43RES

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\*\* PROJECT OWNER SUMMARY - Bid Item \*\*

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SUMMARY PAGE 1

	QUANTITY	UOM	CONTRACT	ESCALATE	CONTING	TOTAL COST	UNIT COST
01 Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08 Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10 Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

LABOR ID: C43RES EQUIP ID: C43RES

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\*\* PROJECT OWNER SUMMARY - Feature \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
01 Demolition							
01.01 Demo Large Pump Station	1.00	EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00	EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam							
02.01 Clear and Grub	10365	AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000	CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852	CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670	LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438	CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chimney Drain	130250	CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936	SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659	CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.09 Toe Drain Outfall End Treatment	174.00	TON	9,393	1,644	2,759	13,796	79.29
02.15 Select Fill	41000	CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00	AC	425,976	74,546	125,130	625,652	2673.73
02.21 Sodding	250.00	AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations							
04.01 Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate S1	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure							
06.01 Gate S12	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
07 Perimeter Canal Structures							
07.01 Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358
TOTAL Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08 Crested Spillway							
08.01 Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
09.02 Gate S9	1.00	EA	837,412	146,547	245,990	1,229,948	1229948
09.03 Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
09.04 Gate S15	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
09.05 Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18	1.00	EA	1,028,163	179,929	302,023	1,510,115	1510115
09.08 Gate S19	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
TOTAL Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274
10 Sitework							
10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical							
11.01 Power Line Relocation	1.00	JB	815,000	142,625	239,406	1,197,031	1197031
TOTAL Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
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	QUANTITY	UOM	CONTRACT	ESCALATED	CONTINGEN	TOTAL COST	UNIT COST
01 Demolition							
01.01 Demo Large Pump Station	1.00	EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00	EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam							
02.01 Clear and Grub	10365	AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000	CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852	CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670	LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438	CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chimney Drain	130250	CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936	SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659	CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.09 Toe Drain Outfall End Treatment	174.00	TON	9,393	1,644	2,759	13,796	79.29
02.15 Select Fill	41000	CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00	AC	425,976	74,546	125,130	625,652	2673.73
02.21 Sodding	250.00	AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls							
02.95.95 Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Cell Instruments & Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations							
04.01 Pump Station 1 - C43P1							
04.01.01 Pump Station 1							
04.01.02 Equipment	16,744	484	16,744,484	2,930,285	4,918,692	24,593,461	
04.01.03 Trash Handling System Bridge	18,179	209	18,179,209	3,181,362	5,340,143	26,700,714	
04.01.04 Siphon Break Structure	181,856		181,856	31,825	53,420	267,102	
04.01.05 Saxophone Discharge	906,630		906,630	158,660	266,322	1,331,612	
04.01.06 Equipment Building	1,104,487		1,104,487	193,285	324,443	1,622,216	
04.01.07 Sheet Pile Retaining Wall	29,324		29,324	5,132	8,614	43,070	
04.01.08 Earthwork Final Grading	3,099,209		3,099,209	542,362	910,393	4,551,964	
04.01.09 Pavement	23,843		23,843	4,173	7,004	35,019	
04.01.10 Concrete Paved Ditch	92167	SF	219,162	38,353	64,379	321,894	
04.01.11 Channel Excavation	85.00	CY	8,524	1,492	2,504	12,519	
04.01.12 Septic Tank & Drain Field	240430	CY	192,923	33,761	56,671	283,355	
	1.00	EA	16,992	2,974	4,991	24,957	

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.13 Storm Sewer Piping	1.00	EA	19,797	3,465	5,815	29,077	29077.20
TOTAL Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4							
04.02.01 Pump Station 4 - C43P4			719,977	125,996	211,493	1,057,466	
04.02.02 Equipment			2,024,227	354,240	594,617	2,973,083	
04.02.04 Intake Structure			989,029	173,080	290,527	1,452,636	
04.02.05 Pump House/ Discharge Structure			349,510	61,164	102,669	513,343	
04.02.06 Retaining Walls			89,002	15,575	26,144	130,722	
04.02.10 Sitework			976,418	170,873	286,823	1,434,113	
TOTAL Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate S1							
05.01.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.01.03 Concrete	1.00	EA	677,568	118,574	199,035	995,177	995177.44
05.01.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.01.05 Gates	1.00	EA	935,653	163,739	274,848	1,374,241	1374241
05.01.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.01.90 Miscellaneous	1.00	EA	92,477	16,183	27,165	135,825	135825.38
05.01.95 Controls	1.00	EA	60,910	10,659	17,892	89,461	89460.90
TOTAL Gate S1	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8							
05.04.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.04.03 Concrete	1.00	EA	651,469	114,007	191,369	956,845	956845.00
05.04.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.04.05 Gates	1.00	EA	935,437	163,701	274,784	1,373,922	1373922
05.04.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.04.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.04.90 Miscellaneous	1.00	EA	90,750	15,881	26,658	133,289	133289.01
05.04.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
06 Balancing Structure							
06.01 Gate S12							
06.01.03 Concrete	1.00	EA	726,292	127,101	213,348	1,066,742	1066742
06.01.05 Gates	1.00	EA	262,328	45,907	77,059	385,294	385294.22
06.01.11 Electrical	1.00	EA	444,201	77,735	130,484	652,421	652420.92
06.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
06.01.90 Miscellaneous	1.00	EA	82,655	14,465	24,280	121,400	121399.97
06.01.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S12	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures							
07.01 Gate S3							
07.01.01 Excavation	1.00	JB	2,762	483	811	4,057	4057.00
07.01.02 Sheet Piling	1.00	EA	135,881	23,779	39,915	199,575	199575.21
07.01.03 Concrete	1.00	EA	361,222	63,214	106,109	530,544	530544.14
07.01.04 Erosion Control System	1.00	JB	19,509	3,414	5,731	28,653	28653.36
07.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
07.01.06 Rip Rap	1.00	EA	17,762	3,108	5,217	26,087	26087.43
07.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
07.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.01.95 Controls	1.00	EA	386,585	67,652	113,559	567,796	567796.23
TOTAL Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10							
07.02.01 Excavation	1.00	JB	4,505	788	1,323	6,616	6616.12
07.02.02 Sheet Piling	1.00	EA	212,839	37,247	62,521	312,607	312606.58
07.02.03 Concrete	1.00	EA	501,442	87,752	147,299	736,493	736493.50
07.02.04 Erosion Control System	1.00	JB	23,413	4,097	6,877	34,387	34387.39
07.02.05 Gates	1.00	EA	352,498	61,687	103,546	517,731	517731.33
07.02.06 Rip Rap	1.00	EA	27,858	4,875	8,183	40,917	40916.66
07.02.11 Electrical	1.00	EA	374,950	65,616	110,142	550,708	550707.83
07.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.02.95 Controls	1.00	EA	136,230	23,840	40,018	200,088	200087.62
TOTAL Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11							
07.03.01 Excavation	1.00	JB	6,679	1,169	1,962	9,810	9809.57

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
07.03.02 Sheet Piling	1.00	EA	450,150	78,776	132,231	661,157	661157.32
07.03.03 Concrete	1.00	EA	837,322	146,531	245,963	1,229,817	1229817
07.03.04 Erosion Control System	1.00	JB	30,486	5,335	8,955	44,777	44776.61
07.03.05 Gates	1.00	EA	518,168	90,679	152,212	761,060	761059.98
07.03.06 Rip Rap	1.00	EA	44,804	7,841	13,161	65,805	65805.16
07.03.11 Electrical	1.00	EA	384,236	67,241	112,869	564,347	564347.22
07.03.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.03.95 Controls	1.00	EA	28,054	4,910	8,241	41,205	41204.82
TOTAL Gate S11	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358
TOTAL Perimeter Canal Structures	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08 Crested Spillway							
08.01 Gate CS1 Crest Spillway							
08.01.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.01.03 Concrete	1.00	EA	322,165	56,379	94,636	473,180	473179.88
08.01.06 Rip Rap	1.00	EA	50,976	8,921	14,974	74,871	74870.69
08.01.90 Miscellaneous	1.00	EA	11,479	2,009	3,372	16,859	16859.12
TOTAL Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway							
08.02.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.02.03 Concrete	1.00	EA	219,553	38,422	64,494	322,468	322468.33
08.02.06 Rip Rap	1.00	EA	39,172	6,855	11,507	57,534	57533.99
08.02.90 Miscellaneous	1.00	EA	10,161	1,778	2,985	14,923	14923.49
TOTAL Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7							
09.01.03 Concrete	1.00	EA	248,569	43,500	73,017	365,086	365086.10
09.01.04 Erosion Control System	1.00	JB	107,119	18,746	31,466	157,331	157331.28
09.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
09.01.06 Stop Logs	1.00	EA	76,109	13,319	22,357	111,785	111785.15
09.01.07 Rip Rap	1.00	EA	46,811	8,192	13,751	68,754	68753.80
09.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.01.95 Controls	1.00	EA	257,693	45,096	75,697	378,486	378486.42

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
-----							
TOTAL Gate S7							
09.02 Gate S9	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
-----							
09.02.03 Concrete	1.00	EA	91,974	16,095	27,017	135,086	135086.43
09.02.04 Erosion Control System	1.00	JB	27,310	4,779	8,022	40,111	40111.27
09.02.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.02.06 Stop Logs	1.00	EA	30,987	5,423	9,103	45,513	45512.53
09.02.07 Rip Rap	1.00	EA	24,827	4,345	7,293	36,464	36464.40
09.02.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.02.95 Controls	1.00	EA	181,530	31,768	53,324	266,622	266621.53
-----							
TOTAL Gate S9	1.00	EA	837,412	146,547	245,990	1,229,948	1229948
-----							
09.03 Gate S14							
09.03.03 Concrete	1.00	EA	77,013	13,477	22,623	113,113	113112.72
09.03.04 Erosion Control System	1.00	JB	12,603	2,205	3,702	18,510	18510.10
09.03.05 Gates	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.03.06 Stop Logs	1.00	EA	38,055	6,660	11,179	55,893	55892.58
09.03.07 Rip Rap	1.00	EA	28,942	5,065	8,502	42,509	42509.21
09.03.11 Electrical	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.03.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.03.95 Controls	1.00	EA	351,432	61,501	103,233	516,166	516166.28
-----							
TOTAL Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
-----							
09.04 Gate S15							
09.04.03 Concrete	1.00	EA	109,014	19,077	32,023	160,114	160113.61
09.04.04 Erosion Control System	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.04.05 Gates	1.00	EA	143,081	25,039	42,030	210,150	210150.34
09.04.06 Stop Logs	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.04.07 Rip Rap	1.00	EA	69,926	12,237	20,541	102,704	102704.46
09.04.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.04.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.04.95 Controls	1.00	EA	386,585	67,652	113,559	567,796	567796.23
-----							
TOTAL Gate S15	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
-----							
09.05 Gate S16							
09.05.03 Concrete	1.00	EA	46,224	8,089	13,578	67,892	67891.96
09.05.04 Erosion Control System	1.00	JB	9,327	1,632	2,740	13,700	13699.55
09.05.06 Stop Logs	1.00	EA	70,129	12,273	20,600	103,002	103002.03

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09.05.07 Rip Rap	1.00	EA	20,711	3,624	6,084	30,420	30419.59
TOTAL Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17							
09.06.03 Concrete	1.00	EA	67,505	11,813	19,830	99,148	99148.27
09.06.04 Erosion Control System	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.06.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.06.06 Stop Logs	1.00	EA	35,065	6,136	10,300	51,501	51501.02
09.06.07 Rip Rap	1.00	EA	17,430	3,050	5,120	25,601	25600.67
09.06.11 Electrical	1.00	EA	59,406	10,396	17,451	87,253	87253.19
09.06.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.06.95 Controls	1.00	EA	410,020	71,753	120,443	602,216	602216.20
TOTAL Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18							
09.07.03 Concrete	1.00	EA	69,905	12,233	20,535	102,673	102673.05
09.07.04 Erosion Control System	1.00	JB	15,403	2,696	4,525	22,623	22623.09
09.07.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.07.06 Stop Logs	1.00	EA	36,424	6,374	10,699	53,497	53497.18
09.07.07 Rip Rap	1.00	EA	17,188	3,008	5,049	25,245	25244.58
09.07.11 Electrical	1.00	EA	356,774	62,435	104,802	524,011	524011.37
09.07.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.07.95 Controls	1.00	EA	408,449	71,479	119,982	599,910	599910.18
TOTAL Gate S18	1.00	EA	1,028,163	179,929	302,023	1,510,115	1510115
09.08 Gate S19							
09.08.03 Concrete	1.00	EA	54,274	9,498	15,943	79,714	79714.32
09.08.04 Erosion Control System	1.00	JB	12,600	2,205	3,701	18,507	18506.74
09.08.05 Gates	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.08.06 Stop Logs	1.00	EA	27,725	4,852	8,144	40,722	40721.73
09.08.07 Rip Rap	1.00	EA	18,363	3,214	5,394	26,971	26970.71
09.08.11 Electrical	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.08.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.08.95 Controls	1.00	EA	431,884	75,580	126,866	634,330	634330.14
TOTAL Gate S19	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
TOTAL Gated Culvert	1.00	EA	7,315,931	1,280,288	2,149,055	10,745,274	10745274

10 Sitework

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road							
10.20.01 Toe Road/Access Road Shell Rock	1.00	EA	1,899,512	332,415	557,982	2,789,908	2789908
10.20.02 Asphalt Paving	1.00	EA	636,853	111,449	187,076	935,378	935377.90
TOTAL Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370
11 Site Electrical							
11.01 Power Line Relocation	1.00	JB	815,000	142,625	239,406	1,197,031	1197031
TOTAL Site Electrical	1.00	EA	815,000	142,625	239,406	1,197,031	1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637	334,298,183	334298183

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
01 Demolition							
01.01 Demo Large Pump Station	1.00	EA	14,659	2,565	4,306	21,531	21531.03
01.02 Demo Small Pump Station	1.00	EA	28,132	4,923	8,264	41,319	41319.08
TOTAL Demolition	1.00	EA	42,792	7,489	12,570	62,850	62850.12
02 Perimeter Dam, Separator Dam							
02.01 Clear and Grub	10365	AC	10,356,554	1,812,397	3,042,238	15,211,189	1467.55
02.02 Stripping	1070000	CY	1,419,791	248,463	417,064	2,085,318	1.95
02.03 Blanket Drain	192852	CY	9,989,350	1,748,136	2,934,371	14,671,857	76.08
02.04 Toe Drain	106670	LF	1,178,873	206,303	346,294	1,731,470	16.23
02.05 Random Fill Embankment	19772438	CY	59,688,679	10,445,519	17,533,549	87,667,747	4.43
02.06 Chimney Drain	130250	CY	524,360	91,763	154,031	770,153	5.91
02.07 Slurry Wall	4485936	SF	22,065,512	3,861,465	6,481,744	32,408,720	7.22
02.08 Soil Cement	789659	CY	45,799,387	8,014,893	13,453,570	67,267,849	85.19
02.15 Toe Drain Outfall End Treatment	174.00	TON	9,393	1,644	2,759	13,796	79.29
02.19 Select Fill	41000	CY	414,874	72,603	121,869	609,346	14.86
02.20 Seeding	234.00	AC	425,976	74,546	125,130	625,652	2673.73
02.21 Sodding	250.00	AC	5,669,743	992,205	1,665,487	8,327,435	33309.74
02.95 Cell Instruments & Controls							
02.95.95 Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Cell Instruments & Controls	1.00	EA	44,597	7,804	13,100	65,501	65501.47
TOTAL Perimeter Dam, Separator Dam	1.00	EA	157,587,087	27,577,740	46,291,207	231,456,034	231456034
03 Recreation Areas	1.00	EA	23,722	4,151	6,968	34,842	34842.14
04 Pump Stations							
04.01 Pump Station 1 - C43P1							
04.01.01 Pump Station 1							
04.01.01.01 Substructure							
04.01.01.01 Standard Foundations							
04.01.01.01.01 Wall Foundations	1.00	LF	985,232	172,416	289,412	1,447,059	1447059
TOTAL Standard Foundations	1.00	SF	985,232	172,416	289,412	1,447,059	1447059
04.01.01.01.02 Special Foundation Conditions							

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
04.01.01.01.02.04 Dewatering	1.00	SF	3,425,211	599,412	1,006,156	5,030,779	5030779
TOTAL Special Foundation Conditions	1.00	SF	3,425,211	599,412	1,006,156	5,030,779	5030779
04.01.01.01.04 Foundation Excavation							
04.01.01.01.04.01 Excavation for Basements	1.00	CY	85,909	15,034	25,236	126,178	126178.41
TOTAL Foundation Excavation	1.00	CY	85,909	15,034	25,236	126,178	126178.41
TOTAL Substructure	1.00	SF	4,496,352	786,862	1,320,803	6,604,017	6604017
04.01.01.02 Superstructure							
04.01.01.02.01 Floor Construction							
04.01.01.02.01.03 Floor Decks and Slabs	1.00	SF	25,687	4,495	7,545	37,727	37727.19
04.01.01.02.01.50 Intake Zone	1.00	CY	463,324	81,082	136,101	680,507	680506.67
04.01.01.02.01.51 Intake Bays EL -16 to EL -6	1.00	CY	192,878	33,754	56,858	283,289	283289.04
04.01.01.02.01.52 Intake Bays EL -6 to EL -3.5	1.00	CY	152,870	26,752	44,906	224,528	224528.13
04.01.01.02.01.53 Pipe Gallery EL 10 to EL 22	1.00	CY	514,892	90,106	151,249	756,247	756247.04
04.01.01.02.01.54 Intake Bays EL -3.5 to EL 7	1.00	CY	312,387	54,668	91,764	458,818	458817.96
04.01.01.02.01.60 Fill Concrete	1.00	CY	287,379	50,291	84,418	422,089	422088.53
04.01.01.02.01.61 Pipe Gallery Slab EL 7 to EL 10	1.00	CY	532,045	93,108	156,288	781,441	781440.84
04.01.01.02.01.62 Operating Deck Slab EL 22-EL 25	1.00	CY	547,720	95,851	160,893	804,464	804463.53
04.01.01.02.01.63 Service Bridge EL 16	1.00	CY	117,684	20,595	34,570	172,848	172848.15
04.01.01.02.01.64 Entrance Ramps	1.00	CY	40,133	7,023	11,789	58,945	58944.70
04.01.01.02.01.65 Miscellaneous Slabs	1.00	CY	148,693	26,021	43,679	218,393	218392.81
04.01.01.02.01.66 Fuel Oil Storage Area	1.00	CY	88,547	15,496	26,011	130,053	130052.99
04.01.01.02.01.75 Sand Fill	3730.00	CY	23,624	4,134	6,940	34,698	9.30
TOTAL Floor Construction	1.00	SF	3,447,861	603,376	1,012,809	5,064,046	5064046
04.01.01.02.02 Roof Construction							
04.01.01.02.02.01 Structural Frame	1.00	SF	1,398,392	244,719	410,778	2,053,888	2053888
04.01.01.02.02.03 Roof Decks and Slabs	1.00	SF	187,394	32,794	55,047	275,234	275234.44
TOTAL Roof Construction	1.00	SF	1,585,785	277,512	465,824	2,329,122	2329122
04.01.01.02.03 Stair Construction							
04.01.01.02.03.01 Interior Stair Structure	1.00	VLF	33,214	5,813	9,757	48,783	48783.50
TOTAL Stair Construction	1.00	FLT	33,214	5,813	9,757	48,783	48783.50
TOTAL Superstructure	1.00	SF	5,066,861	886,701	1,488,390	7,441,952	7441952

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Currency in DOLLARS

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.01.03 Exterior Closure							
04.01.01.03.01 Exterior Walls							
04.01.01.03.01.01 Exterior Skin	29790	SF	661,079	115,689	194,192	970,960	32.59
04.01.01.03.01.04 Parapets	1.00	LF	37,226	6,514	10,935	54,675	54674.96
TOTAL Exterior Walls	1.00	SF	698,305	122,203	205,127	1,025,635	1025635
04.01.01.03.02 Exterior Windows							
04.01.01.03.02.01 Windows	1.00	SF	15,766	2,759	4,631	23,156	23155.63
TOTAL Exterior Windows	1.00	SF	15,766	2,759	4,631	23,156	23155.63
04.01.01.03.03 Exterior Personnel Doors							
04.01.01.03.03.02 Solid Doors	1.00	EA	15,869	2,777	4,662	23,308	23307.58
TOTAL Exterior Personnel Doors	1.00	EA	15,869	2,777	4,662	23,308	23307.58
TOTAL Exterior Closure	1.00	SF	729,939	127,739	214,420	1,072,098	1072098
04.01.01.04 Roofing							
04.01.01.04.01 Roofing							
04.01.01.04.01.01 Roof Coverings	1.00	SF	3,864	676	1,135	5,675	5674.78
04.01.01.04.01.06 Gutters and Downspouts	1.00	LF	6,071	1,062	1,783	8,916	8916.45
TOTAL Roofing	1.00	SF	9,934	1,739	2,918	14,591	14591.22
TOTAL Roofing	1.00	SF	9,934	1,739	2,918	14,591	14591.22
04.01.01.05 Interior Construction							
04.01.01.05.01 Partitions							
04.01.01.05.01.01 Fixed Partitions	1.00	SF	20,170	3,530	5,925	29,624	29624.50
TOTAL Partitions	1.00	SF	20,170	3,530	5,925	29,624	29624.50
04.01.01.05.02 Interior Personnel Doors							
04.01.01.05.02.01 Standard Interior Doors	1.00	EA	12,486	2,185	3,668	18,339	18338.54

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
TOTAL Interior Personnel Doors	1.00	EA	12,486	2,185	3,668	18,339	18338.54
04.01.01.05.04 Interior Specialties							
04.01.01.05.04.01 Guard Rails	1.00	EA	20,556	3,597	6,038	30,192	30192.14
TOTAL Interior Specialties	1.00	SF	20,556	3,597	6,038	30,192	30192.14
TOTAL Interior Construction	1.00	SF	53,212	9,312	15,631	78,155	78155.18
04.01.01.06 Interior Finishes							
04.01.01.06.01 Wall Finishes							
04.01.01.06.01.04 Tile and Terrazzo Wall Finishes	1.00	SF	7,339	1,284	2,156	10,779	10779.33
04.01.01.06.01.05 Painting to Wall	1.00	SF	39,448	6,903	11,588	57,939	57938.66
TOTAL Wall Finishes	1.00	SF	46,787	8,188	13,744	68,718	68717.98
04.01.01.06.02 Flooring and Floor Finishes							
04.01.01.06.02.01 Tile Floor Finishes	1.00	SF	2,995	524	880	4,399	4399.33
04.01.01.06.02.08 Painting and Staining Floors	1.00	SF	8,429	1,475	2,476	12,380	12380.02
TOTAL Flooring and Floor Finishes	1.00	SF	11,424	1,999	3,356	16,779	16779.36
04.01.01.06.03 Ceiling and Ceiling Finishes							
04.01.01.06.03.04 Acoustical Ceiling Tiles & Panel	1.00	SF	3,361	588	987	4,937	4936.76
04.01.01.06.03.06 Painting and Staining Ceilings	1.00	SF	33,779	5,911	9,923	49,613	49613.23
TOTAL Ceiling and Ceiling Finishes	1.00	SF	37,140	6,500	10,910	54,550	54549.99
TOTAL Interior Finishes	1.00	SF	95,351	16,686	28,009	140,047	140047.34
04.01.01.07 Mechanical							
04.01.01.07.10 Piping							
04.01.01.07.10.01 Drainage System	1.00	LF	1,544,429	270,275	453,676	2,268,380	2268380
04.01.01.07.10.02 Vacuum Priming System	1.00	LF	418,104	73,168	122,818	614,090	614089.80
04.01.01.07.10.03 Cooling Water Supply System	1.00	LF	678,949	118,816	199,441	997,206	997206.00
04.01.01.07.10.04 Waste Fuel & Engine Oil System	1.00	LF	286,715	50,175	84,223	421,113	421113.33
04.01.01.07.10.05 Lube Oil Supply System	1.00	LF	112,018	19,603	32,905	164,526	164526.32
04.01.01.07.10.06 Lubricating Water Supply System	1.00	LF	28,398	4,970	8,342	41,710	41709.79
04.01.01.07.10.07 Potable/Service Water Supply Sys	1.00	LF	10,339	1,809	3,037	15,186	15185.73

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.01.07.10.08 Compressed Air System	1.00	LF	38,418	6,723	11,285	56,427	56426.92
TOTAL Piping	1.00	LF	3,117,371	545,540	915,728	4,578,638	4578638
TOTAL Mechanical	1.00	EA	3,117,371	545,540	915,728	4,578,638	4578638
04.01.01.08 Plumbing							
04.01.01.08.01 Plumbing Fixtures							
04.01.01.08.01.01 Waterclosets	1.00	EA	1,772	310	520	2,602	2601.99
04.01.01.08.01.03 Lavatories	1.00	EA	955	167	281	1,403	1402.99
04.01.01.08.01.05 Showers/Tubs	1.00	EA	1,357	237	398	1,992	1992.37
04.01.01.08.01.08 Service Sink	1.00	EA	1,926	337	566	2,829	
04.01.01.08.01.09 Kitchen Sink	1.00	EA	2,215	388	651	3,253	3253.49
TOTAL Plumbing Fixtures	1.00	EA	8,225	1,439	2,416	12,080	12080.14
04.01.01.08.02 Domestic Water Supply							
04.01.01.08.02.01 Pipes and Fittings	1.00	EA	4,620	809	1,357	6,786	6785.77
TOTAL Domestic Water Supply	1.00	EA	4,620	809	1,357	6,786	6785.77
04.01.01.08.03 Sanitary Waste and Vent System							
04.01.01.08.03.01 Waste Pipe and Fittings	1.00	EA	2,196	384	645	3,225	3225.33
04.01.01.08.03.03 Floor Drains	1.00	EA	2,127	372	625	3,125	3124.62
TOTAL Sanitary Waste and Vent System	1.00	EA	4,323	757	1,270	6,350	6349.95
04.01.01.08.05 Plumbing Equipment							
04.01.01.08.05.01 Domestic Water Equipment	1.00	EA	629	110	185	924	923.83
TOTAL Plumbing Equipment	1.00	EA	629	110	185	924	923.83
TOTAL Plumbing	1.00	EA	17,797	3,115	5,228	26,140	26139.70
04.01.01.09 HVAC							
04.01.01.09.04 Distribution Systems							
04.01.01.09.04.01 Air Distribution, Cooling and	1.00	MCF	787,142	137,750	231,223	1,156,114	1156114
TOTAL Distribution Systems	1.00	MBH	787,142	137,750	231,223	1,156,114	1156114

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.01.01.09.06 Controls and Instrumentation							
04.01.01.09.06.90 Controls	1.00	EA	551,157	96,452	161,902	809,511	809511.33
TOTAL Controls and Instrumentation	1.00	MBH	551,157	96,452	161,902	809,511	809511.33
TOTAL HVAC	1.00	MBH	1,338,298	234,202	393,125	1,965,626	1965626
04.01.01.11 Electric Power And Lighting							
04.01.01.11.01 Service and Distribution							
04.01.01.11.01.03 Main Switchboards	1.00	AMP	66,835	11,696	19,633	98,164	98164.12
04.01.01.11.01.04 Interior Distrib. Transformers	1.00	AMP	9,238	1,620	2,719	13,597	13597.12
04.01.01.11.01.07 Motor Control Centers	1.00	AMP	414,531	72,543	121,769	608,843	608843.00
TOTAL Service and Distribution	1.00	AMP	490,624	85,859	144,121	720,604	720604.23
04.01.01.11.02 Lighting and Branch Wiring							
04.01.01.11.02.02 Lighting Equipment	1.00	EA	215,403	37,695	63,275	316,373	316372.62
TOTAL Lighting and Branch Wiring	1.00	SF	215,403	37,695	63,275	316,373	316372.62
TOTAL Electric Power And Lighting	1.00	AMP	706,027	123,555	207,395	1,036,977	1036977
04.01.01.12 Electrical Systems							
04.01.01.12.01 Communication, Security & Alarm							
04.01.01.12.01.01 Fire Alarm Systems	1.00	OUT	50,599	8,855	14,863	74,317	74316.85
04.01.01.12.01.07 Television Systems	1.00	OUT	61,600	10,780	18,095	90,475	90475.16
04.01.01.12.01.08 Security Systems	1.00	SYS	38,624	6,759	11,346	56,728	56728.39
TOTAL Communication, Security & Alarm	1.00	SF	150,822	26,394	44,304	221,520	221520.41
04.01.01.12.02 Special Electrical Systems							
04.01.01.12.02.01 Instruments & Controls	1.00	EA	29,679	5,194	8,718	43,592	43591.55
TOTAL Special Electrical Systems	1.00	SF	29,679	5,194	8,718	43,592	43591.55
TOTAL Electrical Systems	1.00	SF	180,502	31,588	53,022	265,112	265111.96
04.01.01.13 Equipment							

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
04.01.01.13.01 Fixed and Moveable Equipment							
04.01.01.13.01.85 Bridge Crane	1.00	EA	839,930	146,988	246,729	1,233,647	1233647
04.01.01.13.01.90 Stop Logs	1.00	SF	27,181	4,757	7,985	39,923	39922.71
04.01.01.13.01.91 Elevator	1.00	EA	65,729	11,502	19,308	96,539	96538.81
TOTAL Fixed and Moveable Equipment	1.00	SF	932,840	163,247	274,022	1,370,108	1370108
TOTAL Equipment	1.00	SF	932,840	163,247	274,022	1,370,108	1370108
TOTAL Pump Station 1			16,744,484	2,930,285	4,918,692	24,593,461	
04.01.02 Equipment							
04.01.02.01 Pumps			3,807,817	666,368	1,118,546	5,592,731	
04.01.02.02 Pump Engine			9,058,304	1,585,203	2,660,877	13,304,383	
04.01.02.03 Cooling Water Pumps			119,666	20,942	35,152	175,759	
04.01.02.04 Lubrication Water Pumps			83,208	14,561	24,442	122,211	
04.01.02.05 Vacuum Pumps			150,543	26,345	44,222	221,110	
04.01.02.06 Waste Fuel & Engine Oil Equipmt			456,314	79,855	134,042	670,211	
04.01.02.07 Lube Oil Pumps			90,076	15,763	26,460	132,300	
04.01.02.08 Potable Water System Equipment			74,826	13,095	21,980	109,901	
04.01.02.09 Compressed Air System			27,765	4,859	8,156	40,780	
04.01.02.10 Vacuum Pumps			162,981	28,522	47,876	239,378	
04.01.02.20 Trash Rake	1.00	EA	3,865,795	676,514	1,135,577	5,677,886	5677886
04.01.02.21 Auxiliary Bay Trash Screen	1.00	EA	281,915	49,335	82,812	414,062	414062.32
TOTAL Equipment			18,179,209	3,181,362	5,340,143	26,700,714	
04.01.03 Trash Handling System Bridge							
04.01.03.01 End Bent			7,022	1,229	2,063	10,314	
04.01.03.02 Intermediate Bent			12,117	2,121	3,559	17,797	
04.01.03.03 Approach Slabs			18,849	3,299	5,537	27,685	
04.01.03.04 Precast Concrete Piling			40,679	7,119	11,949	59,747	
04.01.03.05 Precast Concrete Bridge Deck			74,345	13,010	21,839	109,195	
04.01.03.06 Concrete Guardrail			19,500	3,412	5,728	28,640	
04.01.03.07 Steel Guardrail			9,344	1,635	2,745	13,724	
TOTAL Trash Handling System Bridge			181,856	31,825	53,420	267,102	
04.01.04 Siphon Break Structure							
04.01.04.01 Side Walls			195,846	34,273	57,530	287,649	
04.01.04.02 Bottom Slab			639,260	111,871	187,783	938,913	
04.01.04.03 Top Slab			55,444	9,703	16,287	81,433	
04.01.04.04 Manhole			3,627	635	1,065	5,327	
04.01.04.05 Guardrail			7,475	1,308	2,196	10,979	

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
04.01.04.06 Waterstop			4,977	871	1,462	7,310	
TOTAL Siphon Break Structure			906,630	158,660	266,322	1,331,612	
04.01.05 Saxophone Discharge							
04.01.05.01 Excavation			4,002	700	1,175	5,877	
04.01.05.02 Cofferdam			1,093,179	191,306	321,121	1,605,607	
04.01.05.03 Backfilling			7,307	1,279	2,146	10,732	
TOTAL Saxophone Discharge			1,104,487	193,285	324,443	1,622,216	
04.01.06 Equipment Building	1.00	JB	29,324	5,132	8,614	43,070	43070.32
04.01.07 Sheet Pile Retaining Wall	1.00	JB	3,099,209	542,362	910,393	4,551,964	4551964
04.01.08 Earthwork Final Grading	1.00	JB	23,843	4,173	7,004	35,019	35019.29
04.01.09 Pavement	92167	SF	219,162	38,353	64,379	321,894	3.49
04.01.10 Concrete Paved Ditch	85.00	CY	8,524	1,492	2,504	12,519	147.28
04.01.11 Channel Excavation	240430	CY	192,923	33,761	56,671	283,355	1.18
04.01.12 Septic Tank & Drain Field	1.00	EA	16,992	2,974	4,991	24,957	24956.63
04.01.13 Storm Sewer Piping	1.00	EA	19,797	3,465	5,815	29,077	29077.20
TOTAL Pump Station 1 - C43P1	1.00	EA	40,726,441	7,127,127	11,963,392	59,816,961	59816961
04.02 Pump Station 4 - C43P4							
04.02.01 Pump Station 4 - C43P4							
04.02.01.01 Substructure							
04.02.01.01.02 Special Foundation Conditions							
04.02.01.01.02.04 Dewatering	1.00	SF	268,853	47,049	78,976	394,878	394877.86
TOTAL Special Foundation Conditions	1.00	SF	268,853	47,049	78,976	394,878	394877.86
04.02.01.01.04 Foundation Excavation							
04.02.01.01.04.01 Excavation for Foundation	1.00	CY	3,210	562	943	4,714	4714.14
TOTAL Foundation Excavation	1.00	CY	3,210	562	943	4,714	4714.14
TOTAL Substructure	1.00	SF	272,063	47,611	79,918	399,592	399592.00
04.02.01.02 Superstructure							
04.02.01.02.03 Stair Construction							

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.02.01.02.03.01 Interior Stair Structure	1.00	VLF	1,627	285	478	2,390	2389.88
TOTAL Stair Construction	1.00	FLT	1,627	285	478	2,390	2389.88
TOTAL Superstructure	1.00	SF	1,627	285	478	2,390	2389.88
04.02.01.03 Exterior Closure							
04.02.01.03.01 Exterior Walls							
04.02.01.03.01.01 Exterior Skin	1.00	SF	10,717	1,876	3,148	15,741	15740.84
04.02.01.03.01.03 Interior Skin	1.00	SF	2,187	383	643	3,213	3212.51
TOTAL Exterior Walls	1.00	SF	12,904	2,258	3,791	18,953	18953.36
04.02.01.03.03 Exterior Personnel Doors							
04.02.01.03.03.02 Solid Doors	1.00	EA	8,308	1,454	2,440	12,202	12202.05
TOTAL Exterior Personnel Doors	1.00	EA	8,308	1,454	2,440	12,202	12202.05
TOTAL Exterior Closure	1.00	SF	21,212	3,712	6,231	31,155	31155.41
04.02.01.04 Roofing							
04.02.01.04.01 Roofing							
04.02.01.04.01.01 Roof Coverings	1.00	SF	53,701	9,398	15,775	78,873	78873.37
04.02.01.04.01.05 Roofing Openings & Supports	1.00	SF	1,700	297	499	2,497	2496.60
04.02.01.04.01.06 Gutters and Downspouts	1.00	LF	1,732	303	509	2,544	2544.36
TOTAL Roofing	1.00	SF	57,133	9,998	16,783	83,914	83914.34
TOTAL Roofing	1.00	SF	57,133	9,998	16,783	83,914	83914.34
04.02.01.05 Interior Construction							
04.02.01.05.02 Interior Personnel Doors							
04.02.01.05.02.01 Standard Interior Doors	1.00	EA	2,542	445	747	3,734	3733.59
TOTAL Interior Personnel Doors	1.00	EA	2,542	445	747	3,734	3733.59
04.02.01.05.04 Interior Specialties							
04.02.01.05.04.01 Guard Rails	1.00	EA	15,158	2,653	4,453	22,263	22262.89

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
04.02.01.05.04.03 Stairs & Ladders	1.00	SF	33,214	5,812	9,757	48,783	48783.46
TOTAL Interior Specialties	1.00	SF	48,372	8,465	14,209	71,046	71046.35
TOTAL Interior Construction	1.00	SF	50,914	8,910	14,956	74,780	74779.94
04.02.01.09 HVAC							
04.02.01.09.04 Distribution Systems							
04.02.01.09.04.01 Air Distribution, Cooling and	1.00	MCF	26,871	4,702	7,893	39,466	39466.28
TOTAL Distribution Systems	1.00	MBH	26,871	4,702	7,893	39,466	39466.28
04.02.01.09.06 Controls and Instrumentation							
04.02.01.09.06.90 Controls	1.00	EA	56,648	9,913	16,640	83,202	83202.47
TOTAL Controls and Instrumentation	1.00	MBH	56,648	9,913	16,640	83,202	83202.47
TOTAL HVAC	1.00	MBH	83,519	14,616	24,534	122,669	122668.75
04.02.01.11 Electrical							
04.02.01.11.01 Service and Distribution							
04.02.01.11.01.9X Service And Distribution			233,508	40,864	68,593	342,965	
TOTAL Service and Distribution	1.00	AMP	233,508	40,864	68,593	342,965	342965.38
TOTAL Electrical	1.00	AMP	233,508	40,864	68,593	342,965	342965.38
TOTAL Pump Station 4 - C43P4			719,977	125,996	211,493	1,057,466	
04.02.02 Equipment							
04.02.02.01 Barrel Pump & Motor	3.00	3A	2,024,227	354,240	594,617	2,973,083	991027.77
TOTAL Equipment			2,024,227	354,240	594,617	2,973,083	
04.02.04 Intake Structure							
04.02.04.01 Footing	1.00	EA	257,152	45,002	75,538	377,692	377691.79
04.02.04.02 Abutments, Piers, Backwall	1.00	EA	724,930	126,863	212,948	1,064,740	1064740
04.02.04.03 Intake Noses	1.00	EA	2,401	420	705	3,527	3526.99

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTING	TOTAL COST	UNIT COST
04.02.04.04 Keyway	1.00	EA	4,546	796	1,335	6,677	6676.62
TOTAL Intake Structure			989,029	173,080	290,527	1,452,636	
04.02.05 Pump House/ Discharge Structure							
04.02.05.01 Wall Footings			36,880	6,454	10,834	54,168	
04.02.05.02 Foundation Wall			25,443	4,453	7,474	37,369	
04.02.05.03 Slabs			71,903	12,583	21,122	105,608	
04.02.05.04 Columns			32,196	5,634	9,458	47,289	
04.02.05.05 Beams			46,603	8,156	13,690	68,448	
04.02.05.06 Chamber Walls			56,388	9,868	16,564	82,819	
04.02.05.08 Approach Slab			58,302	10,203	17,126	85,631	
04.02.05.09 Intake Slab			16,478	2,884	4,841	24,203	
04.02.05.10 Discharge Chamber Keyway			4,082	714	1,199	5,996	
04.02.05.11 Equipment Pads			1,235	216	363	1,813	
TOTAL Pump House/ Discharge Structure			349,510	61,164	102,669	513,343	
04.02.06 Retaining Walls			89,002	15,575	26,144	130,722	
04.02.10 Sitework			976,418	170,873	286,823	1,434,113	
TOTAL Pump Station 4 - C43P4			5,148,162	900,928	1,512,273	7,561,363	
TOTAL Pump Stations	1.00	EA	45,874,603	8,028,056	13,475,665	67,378,323	67378323
05 Main Outlet Structure							
05.01 Gate S1							
05.01.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.01.03 Concrete							
05.01.03.01 Conduits							
05.01.03.01.10 Typical Conduit							
05.01.03.01.10.01 Base Slab	1.00	EA	66,822	11,694	19,629	98,145	98145.33
05.01.03.01.10.02 Center Haunch	1.00	EA	3,729	653	1,095	5,477	5476.71
05.01.03.01.10.03 Top Slab	1.00	EA	80,810	14,142	23,738	118,689	118689.49
05.01.03.01.10.04 Walls	1.00	EA	58,470	10,232	17,175	85,877	85877.47
TOTAL Typical Conduit	1.00	EA	209,831	36,720	61,638	308,189	308189.00
05.01.03.01.15 Conduit at Gatewell							
05.01.03.01.15.01 Base Slab	1.00	EA	22,863	4,001	6,716	33,581	33580.67

LABOR ID: C43RES EQUIP ID: C43RES

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
05.01.03.01.15.02 Top Slab	1.00	EA	22,784	3,987	6,693	33,464	33464.11
05.01.03.01.15.03 Walls	1.00	EA	29,145	5,100	8,561	42,807	42806.86
TOTAL Conduit at Gatewell	1.00	EA	74,793	13,089	21,970	109,852	109851.65
TOTAL Conduits	1.00	EA	284,623	49,809	83,608	418,041	418040.65
05.01.03.02 Gatewell							
05.01.03.02.10 Gatewell							
05.01.03.02.10.01 Walls (I to Flow)	1.00	EA	27,219	4,763	7,995	39,977	39977.35
05.01.03.02.10.02 Walls (II to Flow)	1.00	EA	18,017	3,153	5,292	26,462	26462.35
05.01.03.02.10.03 Air Vent Castings	1.00	EA	1,451	254	426	2,131	2131.22
TOTAL Gatewell	1.00	EA	46,687	8,170	13,714	68,571	68570.91
TOTAL Gatewell	1.00	EA	46,687	8,170	13,714	68,571	68570.91
05.01.03.03 Intake							
05.01.03.03.01 Intake							
05.01.03.03.01.01 Base Slab	1.00	EA	59,944	10,490	17,609	88,043	88043.29
05.01.03.03.01.02 Top Girders	1.00	EA	5,056	885	1,485	7,425	7425.44
05.01.03.03.01.03 Top Beams	1.00	EA	3,229	565	948	4,742	4742.21
05.01.03.03.01.04 Headwall	1.00	EA	29,484	5,160	8,661	43,305	43304.93
05.01.03.03.01.05 Backside Intake Double Wall	1.00	EA	42,640	7,462	12,532	62,627	62626.97
05.01.03.03.01.06 Transition To Conduit	1.00	EA	8,620	1,509	2,532	12,661	12661.15
05.01.03.03.01.07 Transition To Conduit	1.00	EA	830	145	244	1,219	1219.02
05.01.03.03.01.08 Walls (II to Flow)	1.00	EA	42,235	7,391	12,407	62,033	62033.15
05.01.03.03.01.09 Divider Wall (II to Flow)	1.00	EA	8,665	1,516	2,545	12,726	12726.02
05.01.03.03.01.10 Center Columns	1.00	EA	3,109	544	913	4,566	4565.84
TOTAL Intake	1.00	EA	203,811	35,667	59,870	299,348	299348.03
TOTAL Intake	1.00	EA	203,811	35,667	59,870	299,348	299348.03
05.01.03.04 Stilling Basin							
05.01.03.04.01 Stilling Basin Parabolic							
05.01.03.04.01.01 Walls	1.00	EA	32,588	5,703	9,573	47,864	47863.98
05.01.03.04.01.02 Base Slab	1.00	EA	14,224	2,489	4,178	20,891	20891.38
05.01.03.04.01.03 Shear Key	1.00	EA	1,411	247	414	2,072	2071.69
05.01.03.04.01.04 Top Slab	1.00	EA	11,544	2,020	3,391	16,955	16954.93
TOTAL Stilling Basin Parabolic	1.00	EA	59,766	10,459	17,556	87,782	87781.98

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTING	TOTAL COST	UNIT COST
05.01.03.04.02 Stilling Hydraulic Jump Basin							
05.01.03.04.02.01 Walls	1.00	EA	42,516	7,440	12,489	62,445	62444.82
05.01.03.04.02.02 Base Slab	1.00	EA	25,704	4,498	7,550	37,752	37752.07
05.01.03.04.02.03 Toe Support	1.00	EA	1,343	235	394	1,972	1972.40
05.01.03.04.02.04 Chute Blocks	1.00	EA	624	109	183	917	916.56
05.01.03.04.02.05 Baffle Blocks	1.00	EA	670	117	197	984	984.36
05.01.03.04.02.06 End Sill	1.00	EA	1,302	228	382	1,912	1911.83
05.01.03.04.02.07 Bridge Slab	1.00	EA	9,886	1,730	2,904	14,520	14519.86
05.01.03.04.02.08 Bridge Slab Sills	1.00	EA	636	111	187	934	933.98
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	82,680	14,469	24,287	121,436	121435.87
TOTAL Stilling Basin	1.00	EA	142,446	24,928	41,844	209,218	209217.85
TOTAL Concrete	1.00	EA	677,568	118,574	199,035	995,177	995177.44
05.01.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.01.05 Gates	1.00	EA	935,653	163,739	274,848	1,374,241	1374241
05.01.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.01.90 Miscellaneous	1.00	EA	92,477	16,183	27,165	135,825	135825.38
05.01.95 Controls	1.00	EA	60,910	10,659	17,892	89,461	89460.90
TOTAL Gate S1	1.00	EA	2,417,027	422,980	710,002	3,550,009	3550009
05.04 Gate S8							
05.04.02 Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
TOTAL Sheet Piling	1.00	EA	11,229	1,965	3,299	16,493	16493.08
05.04.03 Concrete							
05.04.03.01 Conduits							
05.04.03.01.10 Typical Conduit							
05.04.03.01.10.01 Base Slab			66,822	11,694	19,629	98,145	98145
05.04.03.01.10.02 Center Haunch			3,729	653	1,095	5,477	5477
05.04.03.01.10.03 Top Slab			72,344	12,660	21,251	106,255	106255
05.04.03.01.10.04 Walls			58,470	10,232	17,175	85,877	85877
TOTAL Typical Conduit			201,365	35,239	59,151	295,754	295754
05.04.03.01.15 Conduit at Gatewell							
05.04.03.01.15.01 Base Slab			24,216	4,238	7,114	35,568	35568

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
05.04.03.01.15.02 Top Slab			22,784	3,987	6,693	33,464	
05.04.03.01.15.03 Walls			29,145	5,100	8,561	42,807	
TOTAL Conduit at Gatewell			76,145	13,325	22,368	111,839	
TOTAL Conduits	1.00	EA	277,510	48,564	81,519	407,593	407592.70
05.04.03.02 Gatewell							
05.04.03.02.10 Gatewell							
05.04.03.02.10.01 Walls (I to Flow)			25,431	4,450	7,470	37,352	
05.04.03.02.10.02 Walls (II to Flow)			15,388	2,693	4,520	22,602	
05.04.03.02.10.03 Air Vent Castings			1,203	211	353	1,767	
TOTAL Gatewell			42,023	7,354	12,344	61,721	
TOTAL Gatewell			42,023	7,354	12,344	61,721	
05.04.03.03 Intake							
05.04.03.03.01 Intake							
05.04.03.03.01.01 Base Slab	1.00	EA	61,517	10,765	18,071	90,353	90352.56
05.04.03.03.01.02 Top Girders	1.00	EA	5,063	886	1,487	7,436	7435.77
05.04.03.03.01.03 Top Beams	1.00	EA	3,333	583	979	4,895	4894.63
05.04.03.03.01.04 Headwall	1.00	EA	26,064	4,561	7,656	38,281	38281.49
05.04.03.03.01.05 Backside Intake Double Wall	1.00	EA	37,588	6,578	11,041	55,207	55206.74
05.04.03.03.01.06 Transition To Conduit	1.00	EA	8,768	1,534	2,576	12,878	12877.51
05.04.03.03.01.07 Transition To Conduit	1.00	EA	845	148	248	1,241	1240.66
05.04.03.03.01.08 Walls (II to Flow)	1.00	EA	37,339	6,534	10,968	54,842	54841.51
05.04.03.03.01.09 Divider Wall (II to Flow)	1.00	EA	8,797	1,539	2,584	12,921	12920.74
05.04.03.03.01.10 Center Columns	1.00	EA	3,109	544	913	4,566	4565.84
TOTAL Intake	1.00	EA	192,420	33,674	56,523	282,617	282617.45
TOTAL Intake	1.00	EA	192,420	33,674	56,523	282,617	282617.45
05.04.03.04 Stilling Basin							
05.04.03.04.01 Stilling Basin Parabolic							
05.04.03.04.01.01 Walls	1.00	EA	31,414	5,497	9,228	46,139	46139.13
05.04.03.04.01.02 Base Slab	1.00	EA	14,271	2,497	4,192	20,961	20960.70
05.04.03.04.01.03 Shear Key	1.00	EA	1,425	249	419	2,093	2093.32
05.04.03.04.01.04 Top Slab	1.00	EA	11,624	2,034	3,414	17,072	17072.30
TOTAL Stilling Basin Parabolic	1.00	EA	58,734	10,278	17,253	86,265	86265.45

LABOR ID: C43RES EQUIP ID: C43RES CURRENCY in DOLLARS CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
05.04.03.04.02 Stilling Hydraulic Jump Basin							
05.04.03.04.02.01 Walls	1.00	EA	40,426	7,074	11,875	59,375	59374.95
05.04.03.04.02.02 Base Slab	1.00	EA	25,782	4,512	7,574	37,868	37867.59
05.04.03.04.02.03 Shear Key	1.00	EA	1,425	249	419	2,093	2093.32
05.04.03.04.02.04 Chute Blocks	1.00	EA	624	109	183	917	916.56
05.04.03.04.02.05 Baffle Blocks	1.00	EA	670	117	197	984	984.36
05.04.03.04.02.06 End Sill	1.00	EA	1,302	228	382	1,912	1911.83
05.04.03.04.02.07 Bridge Slab	1.00	EA	9,917	1,736	2,913	14,566	14566.06
05.04.03.04.02.08 Bridge Slab Sills	1.00	EA	636	111	187	934	933.98
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	80,782	14,137	23,730	118,649	118648.66
TOTAL Stilling Basin	1.00	EA	139,516	24,415	40,983	204,914	204914.11
TOTAL Concrete	1.00	EA	651,469	114,007	191,369	956,845	956845.00
05.04.04 Rip Rap	1.00	EA	41,625	7,284	12,227	61,137	61137.13
05.04.05 Gates	1.00	EA	935,437	163,701	274,784	1,373,922	1373922
05.04.11 Electrical	1.00	EA	536,029	93,805	157,459	787,293	787293.18
05.04.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
05.04.90 Miscellaneous	1.00	EA	90,750	15,881	26,658	133,289	133289.01
05.04.95 Controls	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Gate S8	1.00	EA	2,528,751	442,531	742,821	3,714,103	3714103
TOTAL Main Outlet Structure	1.00	EA	4,945,778	865,511	1,452,822	7,264,112	7264112
06 Balancing Structure							
06.01 Gate S12							
06.01.03 Concrete							
06.01.03.01 Conduits							
06.01.03.01.10 Typical Conduit							
06.01.03.01.10.01 Base Slab			92,163	16,128	27,073	135,364	
06.01.03.01.10.02 Center Haunch			7,165	1,254	2,105	10,524	
06.01.03.01.10.03 Top Slab			111,619	19,533	32,788	163,940	
06.01.03.01.10.04 Walls			73,649	12,889	21,634	108,172	
TOTAL Typical Conduit			284,595	49,804	83,600	417,999	
06.01.03.01.15 Conduit at Gatewell							
06.01.03.01.15.01 Base Slab			35,122	6,146	10,317	51,585	
06.01.03.01.15.02 Top Slab			32,320	5,656	9,494	47,470	

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Currency in DOLLARS

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06.01.03.01.15.03 Walls			42,316	7,405	12,430	62,152	
TOTAL Conduit at Gatewell			109,758	19,208	32,242	161,208	
TOTAL Conduits	1.00	EA	394,354	69,012	115,841	579,207	579206.75
06.01.03.02 Gatewell							
06.01.03.02.10 Gatewell							
06.01.03.02.10.01 Walls (I to Flow)			43,168	7,554	12,681	63,403	
06.01.03.02.10.02 Walls (II to Flow)			23,859	4,175	7,009	35,044	
06.01.03.02.10.03 Air Vent Castings			2,881	504	846	4,232	
TOTAL Gatewell			69,909	12,234	20,536	102,679	
TOTAL Gatewell			69,909	12,234	20,536	102,679	
06.01.03.04 Stilling Basin 1							
06.01.03.04.01 Stilling Basin Parabolic							
06.01.03.04.01.01 Walls	1.00	EA	25,534	4,469	7,501	37,503	37503.49
06.01.03.04.01.02 Base Slab	1.00	EA	20,623	3,609	6,058	30,289	30289.34
06.01.03.04.01.03 Shear Key	1.00	EA	1,855	325	545	2,725	2725.18
06.01.03.04.01.04 Top Slab	1.00	EA	23,478	4,109	6,897	34,483	34482.70
TOTAL Stilling Basin Parabolic	1.00	EA	71,490	12,511	21,000	105,001	105000.70
06.01.03.04.02 Stilling Hydraulic Jump Basin							
06.01.03.04.02.01 Exterior Walls	1.00	EA	11,176	1,956	3,283	16,415	16415.35
06.01.03.04.02.02 Interior Short Walls	1.00	EA	1,400	245	411	2,056	2055.99
06.01.03.04.02.03 Base Slab	1.00	EA	32,880	5,754	9,658	48,292	48292.16
06.01.03.04.02.04 End Wall & Toe Support	1.00	EA	12,770	2,235	3,751	18,755	18755.39
06.01.03.04.02.05 Chute Blocks	1.00	EA	332	58	98	488	487.77
06.01.03.04.02.06 Baffle Blocks	1.00	EA	967	169	284	1,421	1420.85
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	59,525	10,417	17,486	87,428	87427.52
TOTAL Stilling Basin 1	1.00	EA	131,015	22,928	38,486	192,428	192428.23
06.01.03.05 Stilling Basin 2							
06.01.03.05.01 Stilling Basin Parabolic							
06.01.03.05.01.01 Walls	1.00	EA	25,534	4,469	7,501	37,503	37503.49

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06.01.03.05.01.02 Base Slab	1.00	EA	20,623	3,609	6,058	30,289	30289.34
06.01.03.05.01.03 Shear Key	1.00	EA	1,855	325	545	2,725	2725.18
06.01.03.05.01.04 Top Slab	1.00	EA	23,478	4,109	6,897	34,483	34482.70
TOTAL Stilling Basin Parabolic	1.00	EA	71,490	12,511	21,000	105,001	105000.70
06.01.03.05.02 Stilling Hydraulic Jump Basin							
06.01.03.05.02.01 Exterior Walls	1.00	EA	11,176	1,956	3,283	16,415	16415.35
06.01.03.05.02.02 Interior Short Walls	1.00	EA	1,400	245	411	2,056	2055.99
06.01.03.05.02.03 Base Slab	1.00	EA	32,880	5,754	9,658	48,292	48292.16
06.01.03.05.02.04 End Wall & Toe Support	1.00	EA	12,770	2,235	3,751	18,755	18755.39
06.01.03.05.02.05 Chute Blocks	1.00	EA	332	58	98	488	487.77
06.01.03.05.02.06 Baffle Blocks	1.00	EA	967	169	284	1,421	1420.85
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	59,525	10,417	17,486	87,428	87427.52
TOTAL Stilling Basin 2	1.00	EA	131,015	22,928	38,486	192,428	192428.23
TOTAL Concrete	1.00	EA	726,292	127,101	213,348	1,066,742	1066742
06.01.05 Gates							
06.01.11 Electrical	1.00	EA	262,328	45,907	77,059	385,294	385294.22
06.01.15 Equipment Building	1.00	EA	444,201	77,735	130,484	652,421	652420.92
06.01.90 Miscellaneous	1.00	JB	61,536	10,769	18,076	90,381	90380.61
06.01.95 Controls	1.00	EA	82,655	14,465	24,280	121,400	121399.97
TOTAL Gate S12	1.00	EA	200,676	35,118	58,949	294,743	294742.52
TOTAL Balancing Structure	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07 Perimeter Canal Structures							
07.01 Gate S3	1.00	EA	1,777,689	311,096	522,196	2,610,980	2610980
07.01.01 Excavation	1.00	JB	2,762	483	811	4,057	4057.00
07.01.02 Sheet Piling	1.00	EA	135,881	23,779	39,915	199,575	199575.21
07.01.03 Concrete							
07.01.03.01 Slab On Grade							
07.01.03.01.01 Bottom Slab At Culvert	1.00	EA	13,061	2,286	3,837	19,183	19183.16
07.01.03.01.02 Roadway Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.01.03.01.03 Apron Slab	1.00	EA	30,328	5,307	8,909	44,544	44543.96
TOTAL Slab On Grade	1.00	EA	46,915	8,210	13,781	68,906	68905.72

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
07.01.03.02 Walls							
07.01.03.02.01 Abutment Upstream	1.00	EA	176,604	30,906	51,877	259,387	259386.83
07.01.03.02.02 Abutment Downstream	1.00	EA	21,300	3,727	6,257	31,284	31283.81
07.01.03.02.03 Pier	1.00	EA	5,876	1,028	1,726	8,630	8630.34
07.01.03.02.04 Exterior Walls	1.00	EA	10,142	1,775	2,979	14,896	14895.72
07.01.03.02.05 Interior Wall	1.00	EA	6,380	1,116	1,874	9,371	9370.59
07.01.03.02.06 Head Wall	1.00	EA	9,687	1,695	2,846	14,228	14228.19
TOTAL Walls	1.00	EA	229,988	40,248	67,559	337,795	337795.48
07.01.03.03 Sill							
07.01.03.03.01 End Sill	1.00	EA	599	105	176	880	879.97
07.01.03.03.02 For Dewatering Needles	1.00	EA	391	68	115	574	573.56
TOTAL Sill	1.00	EA	990	173	291	1,454	1453.53
07.01.03.04 Baffles							
07.01.03.04.01 Baffles	1.00	EA	852	149	250	1,252	1251.75
TOTAL Baffles	1.00	EA	852	149	250	1,252	1251.75
07.01.03.07 Elevated Slabs							
07.01.03.07.01 Top Slab At Culvert	1.00	EA	15,937	2,789	4,682	23,408	23408.08
07.01.03.07.02 Roadway	1.00	EA	2,713	475	797	3,984	3984.15
07.01.03.07.03 Operating Platform	1.00	EA	804	141	236	1,182	1181.58
TOTAL Elevated Slabs	1.00	EA	19,455	3,405	5,715	28,574	28573.81
07.01.03.08 Breast Wall							
07.01.03.08.01 Breast Wall	1.00	EA	2,117	371	622	3,110	3109.57
TOTAL Breast Wall	1.00	EA	2,117	371	622	3,110	3109.57
07.01.03.09 Pile Cap							
07.01.03.09.01 Pile Cap	1.00	EA	4,849	849	1,424	7,122	7122.25
TOTAL Pile Cap	1.00	EA	4,849	849	1,424	7,122	7122.25
07.01.03.10 Seal Concrete							

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
07.01.03.10.01 Seal Concrete	1.00	EA	56,056	9,810	16,466	82,332	82332.04
TOTAL Seal Concrete	1.00	EA	56,056	9,810	16,466	82,332	82332.04
TOTAL Concrete	1.00	EA	361,222	63,214	106,109	530,544	530544.14
07.01.04 Erosion Control System	1.00	JB	19,509	3,414	5,731	28,653	28653.36
07.01.05 Gates	1.00	EA	170,842	29,897	50,185	250,924	250923.87
07.01.06 Rip Rap	1.00	EA	17,762	3,108	5,217	26,087	26087.43
07.01.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
07.01.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.01.95 Controls	1.00	EA	386,585	67,652	113,559	567,796	567796.23
TOTAL Gate S3	1.00	EA	1,512,861	264,751	444,403	2,222,015	2222015
07.02 Gate S10							
07.02.01 Excavation	1.00	JB	4,505	788	1,323	6,616	6616.12
07.02.02 Sheet Piling	1.00	EA	212,839	37,247	62,521	312,607	312606.58
07.02.03 Concrete							
07.02.03.01 Slab On Grade							
07.02.03.01.01 Bridge Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.02.03.01.02 Ladder Platform	1.00	EA	3,755	657	1,103	5,516	5515.78
07.02.03.01.03 Apron Slab	1.00	EA	173,290	30,326	50,904	254,519	254519.18
TOTAL Slab On Grade	1.00	EA	180,571	31,600	53,043	265,214	265213.57
07.02.03.02 Walls							
07.02.03.02.01 Abutment	1.00	EA	74,378	13,016	21,849	109,243	109242.63
07.02.03.02.02 Pier	1.00	EA	75,979	13,296	22,319	111,594	111593.93
TOTAL Walls	1.00	EA	150,357	26,312	44,167	220,837	220836.56
07.02.03.03 Columns							
07.02.03.03.01 Abutments	1.00	EA	9,128	1,597	2,681	13,407	13407.13
07.02.03.03.02 Piers	1.00	EA	10,140	1,775	2,979	14,893	14893.14
TOTAL Columns	1.00	EA	19,268	3,372	5,660	28,300	28300.27
07.02.03.04 Weir							

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
07.02.03.04.01 Under Roller Gate	1.00	EA	6,634	1,161	1,949	9,744	9744.14
TOTAL Weir	1.00	EA	6,634	1,161	1,949	9,744	9744.14
07.02.03.05 Sill							
07.02.03.05.01 Under Weir Gate	1.00	EA	3,160	553	928	4,641	4641.43
TOTAL Sill	1.00	EA	3,160	553	928	4,641	4641.43
07.02.03.06 Baffles							
07.02.03.06.01 Baffles	1.00	EA	3,712	650	1,090	5,452	5451.95
TOTAL Baffles	1.00	EA	3,712	650	1,090	5,452	5451.95
07.02.03.07 Elevated Slabs							
07.02.03.07.01 Service Bridge Slab	1.00	EA	24,488	4,285	7,193	35,966	35966.36
07.02.03.07.02 Operating Platform	1.00	EA	11,971	2,095	3,516	17,582	17581.90
TOTAL Elevated Slabs	1.00	EA	36,458	6,380	10,710	53,548	53548.27
07.02.03.08 Breast Wall							
07.02.03.08.01 Breast Wall	1.00	EA	2,561	448	752	3,761	3761.29
TOTAL Breast Wall	1.00	EA	2,561	448	752	3,761	3761.29
07.02.03.09 Pile Cap							
07.02.03.09.01 Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
TOTAL Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
07.02.03.10 Seal Concrete							
07.02.03.10.01 Seal Concrete	1.00	EA	91,454	16,004	26,865	134,323	134323.47
TOTAL Seal Concrete	1.00	EA	91,454	16,004	26,865	134,323	134323.47
TOTAL Concrete	1.00	EA	501,442	87,752	147,299	736,493	736493.50
07.02.04 Erosion Control System	1.00	JB	23,413	4,097	6,877	34,387	34387.39
07.02.05 Gates	1.00	EA	352,498	61,687	103,546	517,731	517731.33

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
07.02.06 Rip Rap	1.00	EA	27,858	4,875	8,183	40,917	40916.66
07.02.11 Electrical	1.00	EA	374,950	65,616	110,142	550,708	550707.83
07.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
07.02.95 Controls	1.00	EA	136,230	23,840	40,018	200,088	200087.62
TOTAL Gate S10	1.00	EA	1,695,270	296,672	497,986	2,489,928	2489928
07.03 Gate S11							
07.03.01 Excavation	1.00	JB	6,679	1,169	1,962	9,810	9809.57
07.03.02 Sheet Piling	1.00	EA	450,150	78,776	132,231	661,157	661157.32
07.03.03 Concrete							
07.03.03.01 Slab On Grade							
07.03.03.01.01 Bridge Approach Slab	1.00	EA	3,526	617	1,036	5,179	5178.60
07.03.03.01.02 Ladder Platform	1.00	EA	3,755	657	1,103	5,516	5515.78
07.03.03.01.03 Apron Slab	1.00	EA	273,724	47,902	80,406	402,032	402031.83
TOTAL Slab On Grade	1.00	EA	281,005	49,176	82,545	412,726	412726.22
07.03.03.02 Walls							
07.03.03.02.01 Abutment	1.00	EA	122,414	21,422	35,959	179,795	179795.21
07.03.03.02.02 Pier	1.00	EA	136,654	23,915	40,142	200,711	200711.04
TOTAL Walls	1.00	EA	259,068	45,337	76,101	380,506	380506.24
07.03.03.03 Columns							
07.03.03.03.01 Abutments	1.00	EA	9,128	1,597	2,681	13,407	13407.13
07.03.03.03.02 Piers	1.00	EA	14,165	2,479	4,161	20,806	20805.52
TOTAL Columns	1.00	EA	23,294	4,076	6,843	34,213	34212.65
07.03.03.04 Weir							
07.03.03.04.01 Under Roller Gate	1.00	EA	52,489	9,186	15,419	77,093	77093.34
TOTAL Weir	1.00	EA	52,489	9,186	15,419	77,093	77093.34
07.03.03.05 Sill							
07.03.03.05.01 Under Weir Gate	1.00	EA	9,183	1,607	2,698	13,488	13487.82

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TOTAL Sill	1.00	EA	9,183	1,607	2,698	13,488	13487.82
07.03.03.07 Elevated Slabs							
07.03.03.07.01 Service Bridge Slab	1.00	EA	50,602	8,855	14,864	74,322	74321.93
07.03.03.07.02 Operating Platform	1.00	EA	16,480	2,884	4,841	24,206	24205.57
TOTAL Elevated Slabs	1.00	EA	67,083	11,739	19,706	98,528	98527.51
07.03.03.08 Breast Wall							
07.03.03.08.01 Breast Wall	1.00	EA	2,257	395	663	3,314	3314.40
TOTAL Breast Wall	1.00	EA	2,257	395	663	3,314	3314.40
07.03.03.09 Pile Cap							
07.03.03.09.01 Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
TOTAL Pile Cap	1.00	EA	7,266	1,272	2,135	10,673	10672.56
07.03.03.10 Seal Concrete							
07.03.03.10.01 Seal Concrete	1.00	EA	135,677	23,744	39,855	199,276	199275.93
TOTAL Seal Concrete	1.00	EA	135,677	23,744	39,855	199,276	199275.93
TOTAL Concrete	1.00	EA	837,322	146,531	245,963	1,229,817	1229817
07.03.04 Erosion Control System							
07.03.05 Gates	1.00	JB	30,486	5,335	8,955	44,777	44776.61
07.03.06 Rip Rap	1.00	EA	518,168	90,679	152,212	761,060	761059.98
07.03.11 Electrical	1.00	EA	44,804	7,841	13,161	65,805	65805.16
07.03.15 Equipment Building	1.00	EA	384,236	67,241	112,869	564,347	564347.22
07.03.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S11	1.00	EA	28,054	4,910	8,241	41,205	41204.82
TOTAL Perimeter Canal Structures	1.00	EA	2,361,435	413,251	693,672	3,468,358	3468358
08 Crested Spillway							
08.01 Gate CSl Crest Spillway	1.00	EA	5,569,566	974,674	1,636,060	8,180,300	8180300
08.01.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
-----							
08.01.03 Concrete	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.01.03.01 Conduits							
08.01.03.01.10 Boxed Conduit							
08.01.03.01.10.01 Conduit Base Slab	1.00	EA	15,922	2,786	4,677	23,385	23385.48
08.01.03.01.10.02 Top Slab	1.00	EA	17,378	3,076	5,163	25,817	25817.31
08.01.03.01.10.03 Walls	1.00	EA	16,359	2,863	4,806	24,028	24027.88
TOTAL Boxed Conduit	1.00	EA	49,859	8,725	14,646	73,231	73230.67
08.01.03.01.15 U-Shaped Conduit							
08.01.03.01.15.01 Base Slab	1.00	EA	17,517	3,065	5,146	25,728	25728.09
08.01.03.01.15.02 Walls	1.00	EA	18,041	3,157	5,300	26,498	26497.89
TOTAL U-Shaped Conduit	1.00	EA	35,558	6,223	10,445	52,226	52225.98
TOTAL Conduits	1.00	EA	85,417	14,948	25,091	125,457	125456.65
08.01.03.02 Weir Inlet							
08.01.03.02.01 Weir Inlet							
08.01.03.02.01.01 Base Slab	1.00	EA	28,244	4,943	8,297	41,484	41483.71
08.01.03.02.01.02 Weir	1.00	EA	19,596	3,429	5,756	28,781	28781.25
08.01.03.02.01.03 Transition To Conduit	1.00	EA	3,959	693	1,163	5,815	5814.70
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
08.01.03.04 Stilling Basin							
08.01.03.04.01 Stilling Basin Parabolic							
08.01.03.04.01.01 Walls	1.00	EA	46,708	8,174	13,720	68,602	68601.96
08.01.03.04.01.02 Base Slab	1.00	EA	23,024	4,029	6,763	33,816	33816.08
08.01.03.04.01.03 Top Slab	1.00	EA	9,984	1,747	2,933	14,664	14664.02
TOTAL Stilling Basin Parabolic	1.00	EA	79,715	13,950	23,416	117,082	117082.06
08.01.03.04.02 Stilling Hydraulic Jump Basin							

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
08.01.03.04.02.01 Walls	1.00	EA	68,845	12,048	20,223	101,116	101116.31
08.01.03.04.02.02 Base Slab	1.00	EA	27,128	4,747	7,969	39,844	39844.44
08.01.03.04.02.03 Shear Key	1.00	EA	712	125	209	1,046	1045.93
08.01.03.04.02.04 Chute Blocks	1.00	EA	147	26	43	217	216.62
08.01.03.04.02.05 End Sill	1.00	EA	365	64	107	536	535.77
08.01.03.04.02.06 Bridge Slab	1.00	EA	4,518	791	1,327	6,636	6636.33
08.01.03.04.02.07 Top Slab	1.00	EA	3,517	616	1,033	5,166	5166.11
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	105,233	18,416	30,912	154,562	154561.51
TOTAL Stilling Basin	1.00	EA	184,949	32,366	54,329	271,644	271643.57
TOTAL Concrete	1.00	EA	322,165	56,379	94,636	473,180	473179.88
08.01.06 Rip Rap	1.00	EA	50,976	8,921	14,974	74,871	74870.69
08.01.90 Miscellaneous	1.00	EA	11,479	2,009	3,372	16,859	16859.12
TOTAL Gate CS1 Crest Spillway	1.00	EA	392,187	68,633	115,205	576,025	576024.59
08.02 Gate CS2 Crest Spillway							
08.02.02 Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
TOTAL Sheet Piling	1.00	EA	7,568	1,324	2,223	11,115	11114.90
08.02.03 Concrete							
08.02.03.01 Conduits							
08.02.03.01.10 Boxed Conduit							
08.02.03.01.10.01 Conduit Base Slab	1.00	EA	15,859	2,775	4,659	23,293	23293.06
08.02.03.01.10.02 Top Slab	1.00	EA	17,515	3,065	5,145	25,725	25724.90
08.02.03.01.10.03 Walls	1.00	EA	16,315	2,855	4,793	23,963	23962.97
TOTAL Boxed Conduit	1.00	EA	49,689	8,696	14,596	72,981	72980.93
08.02.03.01.15 U-Shaped Conduit							
08.02.03.01.15.01 Base Slab	1.00	EA	11,260	1,971	3,308	16,539	16538.85
08.02.03.01.15.02 Walls	1.00	EA	11,652	2,039	3,423	17,114	17114.27
TOTAL U-Shaped Conduit	1.00	EA	22,913	4,010	6,731	33,653	33653.12
TOTAL Conduits	1.00	EA	72,602	12,705	21,327	106,634	106634.05
08.02.03.02 Weir Inlet							

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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C43 West Storage Reservoir - South Florida Water Management  
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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
08.02.03.02.01 Weir Inlet							
08.02.03.02.01.01 Base Slab	1.00	EA	28,244	4,943	8,297	41,484	41483.71
08.02.03.02.01.02 Weir	1.00	EA	19,596	3,429	5,756	28,781	28781.25
08.02.03.02.01.03 Transition To Conduit	1.00	EA	3,959	693	1,163	5,815	5814.70
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
TOTAL Weir Inlet	1.00	EA	51,799	9,065	15,216	76,080	76079.66
08.02.03.04 Stilling Basin							
08.02.03.04.01 Stilling Basin Parabolic							
08.02.03.04.01.01 Walls	1.00	EA	32,911	5,759	9,668	48,338	48338.00
08.02.03.04.01.02 Base Slab	1.00	EA	15,188	2,658	4,461	22,307	22306.95
TOTAL Stilling Basin Parabolic	1.00	EA	48,099	8,417	14,129	70,645	70644.95
08.02.03.04.02 Stilling Hydraulic Jump Basin							
08.02.03.04.02.01 Walls	1.00	EA	26,999	4,725	7,931	39,654	39654.29
08.02.03.04.02.02 Base Slab	1.00	EA	14,018	2,453	4,118	20,589	20589.43
08.02.03.04.02.03 Shear Key	1.00	EA	697	122	205	1,024	1024.29
08.02.03.04.02.04 Chute Blocks	1.00	EA	147	26	43	217	216.62
08.02.03.04.02.05 Baffle Blocks	1.00	EA	480	84	141	706	705.61
08.02.03.04.02.06 End Sill	1.00	EA	350	61	103	514	514.14
08.02.03.04.02.07 Bridge Slab	1.00	EA	4,361	763	1,281	6,405	6405.29
TOTAL Stilling Hydraulic Jump Basin	1.00	EA	47,053	8,234	13,822	69,110	69109.68
TOTAL Stilling Basin	1.00	EA	95,152	16,652	27,951	139,755	139754.63
TOTAL Concrete	1.00	EA	219,553	38,422	64,494	322,468	322468.33
08.02.06 Rip Rap	1.00	EA	39,172	6,855	11,507	57,534	57533.99
08.02.90 Miscellaneous	1.00	EA	10,161	1,778	2,985	14,923	14923.49
TOTAL Gate CS2 Crest Spillway	1.00	EA	276,453	48,379	81,208	406,041	406040.71
TOTAL Crested Spillway	1.00	EA	668,640	117,012	196,413	982,065	982065.30
09 Gated Culvert							
09.01 Gate S7							
09.01.03 Concrete							

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
09.01.03.01 Slab On Grade							
09.01.03.01.01 Base Slab	1.00	EA	72,446	12,678	21,281	106,405	106405.32
TOTAL Slab On Grade	1.00	EA	72,446	12,678	21,281	106,405	106405.32
09.01.03.03 Walls	1.00	EA	108,690	19,021	31,928	159,639	159638.82
09.01.03.07 Elevated Slabs							
09.01.03.07.01 Elevated Slab	1.00	EA	65,174	11,405	19,145	95,724	95724.29
TOTAL Elevated Slabs	1.00	EA	65,174	11,405	19,145	95,724	95724.29
09.01.03.08 Beams							
09.01.03.08.01 Needle Beams	1.00	EA	2,259	395	664	3,318	3317.67
TOTAL Beams	1.00	EA	2,259	395	664	3,318	3317.67
TOTAL Concrete	1.00	EA	248,569	43,500	73,017	365,086	365086.10
09.01.04 Erosion Control System							
09.01.05 Gates	1.00	JB	107,119	18,746	31,466	157,331	157331.28
09.01.06 Stop Logs	1.00	EA	170,842	29,897	50,185	250,924	250923.87
09.01.07 Rip Rap	1.00	EA	76,109	13,319	22,357	111,785	111785.15
09.01.11 Electrical	1.00	EA	46,811	8,192	13,751	68,754	68753.80
09.01.15 Equipment Building	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.01.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S7	1.00	EA	257,693	45,096	75,697	378,486	378486.42
09.02 Gate S9	1.00	EA	1,325,443	231,952	389,349	1,946,744	1946744
09.02.03 Concrete							
09.02.03.01 Slab On Grade							
09.02.03.01.01 Base Slab	1.00	EA	30,191	5,283	8,869	44,343	44342.52
TOTAL Slab On Grade	1.00	EA	30,191	5,283	8,869	44,343	44342.52
09.02.03.03 Walls	1.00	EA	43,054	7,535	12,647	63,236	63236.27
09.02.03.07 Elevated Slabs							
09.02.03.07.01 Elevated Slab	1.00	EA	17,095	2,992	5,022	25,108	25108.34
TOTAL Elevated Slabs	1.00	EA	17,095	2,992	5,022	25,108	25108.34

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATOIA UPB ID: UPO1EA



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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
09.02.03.08 Beams							
09.02.03.08.01 Needle Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Concrete	1.00	EA	91,974	16,095	27,017	135,086	135086.43
09.02.04 Erosion Control System	1.00	JB	27,310	4,779	8,022	40,111	40111.27
09.02.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.02.06 Stop Logs	1.00	EA	30,987	5,423	9,103	45,513	45512.53
09.02.07 Rip Rap	1.00	EA	24,827	4,345	7,293	36,464	36464.40
09.02.11 Electrical	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.02.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.02.95 Controls	1.00	EA	181,530	31,768	53,324	266,622	266621.53
TOTAL Gate S9	1.00	EA	837,412	146,547	245,990	1,229,948	1229948
09.03 Gate S14							
09.03.03 Concrete							
09.03.03.01 Slab On Grade							
09.03.03.01.01 Base Slab	1.00	EA	24,258	4,245	7,126	35,628	35628.27
TOTAL Slab On Grade	1.00	EA	24,258	4,245	7,126	35,628	35628.27
09.03.03.03 Walls	1.00	EA	43,019	7,528	12,637	63,184	63183.71
09.03.03.07 Elevated Slabs							
09.03.03.07.01 Elevated Slab	1.00	EA	8,565	1,499	2,516	12,580	12580.09
TOTAL Elevated Slabs	1.00	EA	8,565	1,499	2,516	12,580	12580.09
09.03.03.08 Beams							
09.03.03.08.01 Needle Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Concrete	1.00	EA	77,013	13,477	22,623	113,113	113112.72
09.03.04 Erosion Control System	1.00	JB	12,603	2,205	3,702	18,510	18510.10
09.03.05 Gates	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.03.06 Stop Logs	1.00	EA	38,055	6,660	11,179	55,893	55892.58
09.03.07 Rip Rap	1.00	EA	28,942	5,065	8,502	42,509	42509.21
09.03.11 Electrical	1.00	EA	343,176	60,056	100,808	504,039	504039.06

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A

UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATE	CONTINGEN	TOTAL COST	UNIT COST
09.03.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.03.95 Controls	1.00	EA	351,432	61,501	103,233	516,166	516166.28
TOTAL Gate S14	1.00	EA	986,143	172,575	289,679	1,448,397	1448397
09.04 Gate S15							
09.04.03 Concrete							
09.04.03.01 Slab On Grade							
09.04.03.01.01 Base Slab	1.00	EA	39,070	6,837	11,477	57,384	57384.46
TOTAL Slab On Grade	1.00	EA	39,070	6,837	11,477	57,384	57384.46
09.04.03.03 Walls	1.00	EA	48,568	8,499	14,267	71,335	71334.98
09.04.03.07 Elevated Slabs							
09.04.03.07.01 Elevated Slab	1.00	EA	19,023	3,329	5,588	27,939	27939.42
TOTAL Elevated Slabs	1.00	EA	19,023	3,329	5,588	27,939	27939.42
09.04.03.08 Beams							
09.04.03.08.01 Needle Beams	1.00	EA	2,352	412	691	3,455	3454.75
TOTAL Beams	1.00	EA	2,352	412	691	3,455	3454.75
TOTAL Concrete	1.00	EA	109,014	19,077	32,023	160,114	160113.61
09.04.04 Erosion Control System							
09.04.05 Gates	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.04.06 Stop Logs	1.00	EA	143,081	25,039	42,030	210,150	210150.34
09.04.07 Rip Rap	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.04.11 Electrical	1.00	EA	69,926	12,237	20,541	102,704	102704.46
09.04.15 Equipment Building	1.00	EA	356,764	62,434	104,799	523,997	523996.89
09.04.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S15	1.00	EA	386,585	67,652	113,559	567,796	567796.23
09.05 Gate S16	1.00	EA	1,226,511	214,639	360,288	1,801,438	1801438
09.05.03 Concrete							
09.05.03.01 Slab On Grade							

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN	TOTAL COST	UNIT COST
09.05.03.01.01 Base Slab	1.00	EA	16,641	2,912	4,888	24,441	24441.17
TOTAL Slab On Grade	1.00	EA	16,641	2,912	4,888	24,441	24441.17
09.05.03.03 Walls	1.00	EA	23,107	4,044	6,788	33,938	33937.94
09.05.03.07 Elevated Slabs							
09.05.03.07.01 Elevated Slab	1.00	EA	6,477	1,133	1,903	9,513	9512.85
TOTAL Elevated Slabs	1.00	EA	6,477	1,133	1,903	9,513	9512.85
TOTAL Concrete	1.00	EA	46,224	8,089	13,578	67,891	67891.96
09.05.04 Erosion Control System	1.00	JB	9,327	1,632	2,740	13,700	13699.55
09.05.06 Stop Logs	1.00	EA	70,129	12,273	20,600	103,002	103002.03
09.05.07 Rip Rap	1.00	EA	20,711	3,624	6,084	30,420	30419.59
TOTAL Gate S16	1.00	EA	146,392	25,619	43,003	215,013	215013.13
09.06 Gate S17							
09.06.03 Concrete							
09.06.03.01 Slab On Grade							
09.06.03.01.01 Base Slab	1.00	EA	21,076	3,688	6,191	30,956	30955.62
TOTAL Slab On Grade	1.00	EA	21,076	3,688	6,191	30,956	30955.62
09.06.03.03 Walls	1.00	EA	36,336	6,359	10,674	53,369	53368.83
09.06.03.07 Elevated Slabs							
09.06.03.07.01 Elevated Slab	1.00	EA	8,459	1,480	2,485	12,425	12424.54
TOTAL Elevated Slabs	1.00	EA	8,459	1,480	2,485	12,425	12424.54
09.06.03.08 Beams							
09.06.03.08.01 Needle Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Beams	1.00	EA	1,634	286	480	2,399	2399.29
TOTAL Concrete	1.00	EA	67,505	11,813	19,830	99,148	99148.27
09.06.04 Erosion Control System	1.00	JB	29,477	5,158	8,659	43,294	43294.15
09.06.05 Gates	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.06.06 Stop Logs	1.00	EA	35,065	6,136	10,300	51,501	51501.02

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
09.06.07 Rip Rap	1.00	EA	17,430	3,050	5,120	25,601	25600.67
09.06.11 Electrical	1.00	EA	59,406	10,396	17,451	87,253	87253.19
09.06.15 Equipment Building	1.00	JB	61,536	10,769	18,076	90,381	90380.61
09.06.95 Controls	1.00	EA	410,020	71,753	120,443	602,216	602216.20
TOTAL Gate S17	1.00	EA	742,923	130,012	218,234	1,091,169	1091169
09.07 Gate S18							
09.07.03 Concrete							
09.07.03.01 Slab On Grade							
09.07.03.01.01 Base Slab	1.00	EA	22,010	3,852	6,465	32,327	32326.64
TOTAL Slab On Grade	1.00	EA	22,010	3,852	6,465	32,327	32326.64
09.07.03.03 Walls	1.00	EA	32,919	5,761	9,670	48,349	48349.15
09.07.03.07 Elevated Slabs							
09.07.03.07.01 Elevated Slab	1.00	EA	13,417	2,348	3,941	19,706	19706.15
TOTAL Elevated Slabs	1.00	EA	13,417	2,348	3,941	19,706	19706.15
09.07.03.08 Beams							
09.07.03.08.01 Needle Beams	1.00	EA	1,560	273	458	2,291	2291.11
TOTAL Beams	1.00	EA	1,560	273	458	2,291	2291.11
TOTAL Concrete	1.00	EA	69,905	12,233	20,535	102,673	102673.05
09.07.04 Erosion Control System							
09.07.05 Gates	1.00	JB	15,403	2,696	4,525	22,623	22623.09
09.07.06 Stop Logs	1.00	EA	62,485	10,935	18,355	91,775	91774.74
09.07.07 Rip Rap	1.00	EA	36,424	6,374	10,699	53,497	53497.18
09.07.11 Electrical	1.00	EA	17,188	3,008	5,049	25,245	25244.58
09.07.15 Equipment Building	1.00	EA	356,774	62,435	104,802	524,011	524011.37
09.07.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S18	1.00	EA	408,449	71,479	119,982	599,910	599910.18
09.08 Gate S19							
09.08.03 Concrete							
09.08.03.01 Slab On Grade	1.00	EA	1,028,163	179,929	302,023	1,510,115	1510115

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06

U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATION	CONTINGENT	TOTAL COST	UNIT COST
09.08.03.01.01 Base Slab	1.00	EA	18,156	3,177	5,333	26,667	26667.01
TOTAL Slab On Grade	1.00	EA	18,156	3,177	5,333	26,667	26667.01
09.08.03.03 Walls	1.00	EA	26,283	4,600	7,721	38,603	38603.29
09.08.03.07 Elevated Slabs							
09.08.03.07.01 Elevated Slab	1.00	EA	8,663	1,516	2,545	12,723	12723.38
TOTAL Elevated Slabs	1.00	EA	8,663	1,516	2,545	12,723	12723.38
09.08.03.08 Beams							
09.08.03.08.01 Needle Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Beams	1.00	EA	1,172	205	344	1,721	1720.64
TOTAL Concrete	1.00	EA	54,274	9,498	15,943	79,714	79714.32
09.08.04 Erosion Control System							
09.08.05 Gates	1.00	JB	12,600	2,205	3,701	18,507	18506.74
09.08.06 Stop Logs	1.00	EA	73,386	12,843	21,557	107,786	107786.26
09.08.07 Rip Rap	1.00	EA	27,725	4,852	8,144	40,722	40721.73
09.08.11 Electrical	1.00	EA	18,363	3,214	5,394	26,971	26970.71
09.08.15 Equipment Building	1.00	EA	343,176	60,056	100,808	504,039	504039.06
09.08.95 Controls	1.00	JB	61,536	10,769	18,076	90,381	90380.61
TOTAL Gate S19	1.00	EA	431,884	75,580	126,866	634,330	634330.14
TOTAL Gated Culvert	1.00	EA	1,022,944	179,015	300,490	1,502,450	1502450
10 Sitework							
10.01 Vehicle Barrier Gate	1.00	EA	4,691	821	1,378	6,890	6890.26
10.02 Floating Safety Barrier	1.00	EA	138,041	24,157	40,550	202,748	202748.19
10.03 Floating Weed Barrier	1.00	EA	112,471	19,682	33,038	165,192	165192.23
10.10 Silt Fence	129402	LF	194,896	34,107	57,251	286,254	2.21
10.20 Access Road							
10.20.01 Toe Road/Access Road Shell Rock	1.00	EA	1,899,512	332,415	557,982	2,789,908	2789908
10.20.02 Asphalt Paving	1.00	EA	636,853	111,449	187,076	935,378	935377.90
TOTAL Access Road	1.00	EA	2,536,365	443,864	745,057	3,725,286	3725286
TOTAL Sitework	1.00	EA	2,986,465	522,631	877,274	4,386,370	4386370

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NATO1A UPB ID: UP01EA

Wed 31 May 2006  
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U.S. Army Corps of Engineers  
PROJECT C43RES: C43 West Storage Reservoir - South Florida Water Management  
30% Submittal  
\*\* PROJECT OWNER SUMMARY - Assembly \*\*

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	QUANTITY	UOM	CONTRACT	ESCALATN	CONTINGN
-----					
					TOTAL COST
					UNIT COST
-----					
11 Site Electrical					
11.01 Power Line Relocation	1.00	JB	815,000	142,625	239,406
					1,197,031
					1197031
TOTAL Site Electrical	1.00	EA	815,000	142,625	239,406
					1,197,031
					1197031
TOTAL C43 West Storage Reservoir	1.00	EA	227,607,274	39,831,273	66,859,637
					334,298,183
					334298183

LABOR ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A

UPB ID: UP01EA

Wed 31 May 2006  
Eff. Date 05/31/06  
ERROR REPORT

PROJECT C43RES: U.S. Army Corps of Engineers  
C43 West Storage Reservoir - South Florida Water Management  
30% Submittal

TIME 09:25:13  
ERROR PAGE 1

No errors detected...

\* \* \* END OF ERROR REPORT \* \* \*

LABOR ID: C43RES EQUIP ID: C43RES

Currency in DOLLARS

CREW ID: NAT01A UPB ID: UF01EA

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